Hugh Cecil Earl of Lonsdale.

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Dedicated to H.R.H. The Duke of York, Commander in Chief, etc.

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A TREATISE

ON THE

CAVALRY AND SADDLE HORSE:

WITH REMARKS ON

PACING AND LEAPING,

OBSERVATIONS ON BREEDING,

&c. &c. &c.

DEDICATED BY PERMISSION TO

His Royal Highness the Duke of York,

Commander in Chief, &c. &c.

BY G. ORR, ESQ.

LATE OF THE FENCIBLE CAVALRY.

LONDON:

PRINTED BY D. N. SHURY, BERWICK STREET, SOHO;

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1803.

TO

HIS ROYAL HIGHNESS

THE DUKE OF YORK.

IF there be any merit in the following Work, or if it excite sentiments in the breasts of my countrymen such as the importance of the subject demands, I cannot place it under the patronage and auspices of a character more es-

teemed by the nation in general, and by the army in particular, than your Royal Highness.

I am convinced that any production that may tend to promote the interests of the country at large, and more especially of that department over which you preside with so much vigilance, energy, and discretion, will receive your cordial support and encouragement.

While I congratulate my fellow-subjects on the acquisition of talents in every official situation throughout the Government, I must be allowed to hope that your Royal Highness's pre-eminence may remain the object of present and future emulation; and that you may

long enjoy the honourable distinction you now hold, of superintending the military operations of the British empire.

I have the honour to be, with the most profound respect,

Your Royal Highness's

Most obedient Servant,

THE AUTHOR.

PREFACE.

IN all military countries, (and every country that expects to preserve its liberty, its property, and independence, should possess a military force sufficient to counteract the sudden aggressions of ambitious and restless neighbours,) a spirit of emulation prevails, in a greater or lesser degree, to give to its armies the commanding appearance which the nature of their occupation deserves; and it must be confessed, that the conclusion of the last and the commencement of the present centuries, have afforded ample scope to the talents of those men, whose genius is constantly on the alert to suggest improvements, and whose experience entitles them to confidence. There

is no art or science that requires more industry and perseverance so render complete, than that which has for its object the permanency of a government, the resistance of ambition, and the preservation of existence. But it is not essential that the MEN alone of an army should exhibit a warlike feature. To them belong, undoubtedly, the power to guide and to urge; but independently of the necessity of good qualities and a dignified appearance, there are times when the energy, the power, and the expedition of the HORSE are indispensable to the accomplishment of an object. Too much pains, therefore, cannot be bestowed in selecting, for the use of the cavalry, such animals as are, in every respect, qualified for the purpose: and it is respectfully suggested, that the maxims of choice recommended in the subsequent pages will be the means, not only of introducing into the military ranks such horses as are best adapted to the service, but of frustrating the infamy of those individuals who,

regardless of a real interest for the country, provide for its defenders such horses as are unfit even for the meanest employ. But the alurements of profit will lead to peculation.

What has been said of pleasure-horses, and those for agricultural and other uses, must be too obvious to require any further observation.

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A TREATISE

A

TREATISE,

&c. &c.

CHAP. I.

ON THE SIZE, FIGURE, &c. OF CAVALRY AND SADDLE HORSES.

THE horse now under consideration is that of the middle size, viz. from fourteen and a half to sixteen hands high: but in choosing one fit for action and service, fifteen hands or fifteen and a half is the size best adapted to those purposes. Experience teaches us, that the position now laid down is correct; and the observation is not applicable to horses only, but to the human race also. Men, from five feet six to five feet ten inches in height, that is, from the lowest to the highest of the middle size, are most capable of bearing the

fatigues of labour. The saddle and cavalry horse, if he exceed sixteen hands, is always considered to be over-sized; and unless his qualities be good, and his strength proportionate, he ought in general to be rejected as unfit for service. It is certainly true that a horse should be chosen with bodily powers adequate to the weight which he is intended to bear; but if he be too bulky and long in the legs, the weight of the rider, added to his own, will in a short time prove destructive.

In the earlier ages, prior to the invention of gunpowder, horsemen wore ponderous armour. The man, therefore, must have possessed great muscular powers to enable him to sustain his burthen; and the animal, to support both, must have been such as those now used for drays, waggons, &c. For a considerable period also after a revolution in military tactics was effected by the use of gunpowder, large horses were still retained, because the evolutions of the cavalry being little known, the horse were particularly employed in making heavy charges on the army of an enemy; for which purpose large horses were found to be most effective. Latterly, however, for a variety

of reasons, they have fallen into disuse; and except for the draught of heavy artillery, the baggage, and other laborious purposes, they are totally laid aside, and those of a smaller size have been substituted. Every thing of a heavy and unweildy nature in the army is now done away; and as the cavalry is more employed in scouring the country, foraging, reconnoitring, cutting off a retreat, &c. than in making heavy charges on an enemy's lines, the lighter the dragoons are mounted, the better. The horses, therefore, that seem best adapted for military service, are those from fifteen to fifteen hands and a half, for the light regiments; and from fifteen and a half to sixteen, where the men are larger and heavier. If men be mounted higher than sixteen hands, they will, generally speaking, be badly mounted; for nine out of ten horses that exceed that size will have but little spirit and action, and are only fit for the purposes of draught and agriculture. If dragoons be mounted too low, the effect will be bad: but of the two evils, the latter is the least, as small horses will be more easily kept in condition, will bear more fatigue, and live on less food than those which

are over-sized. Thus we find from observation and experience what size is the most proper for horses that are intended either for the army or the road, the sports of the field, or the various purposes of pleasure. Having therefore fixed on the middle-size as the standard for use and action, we shall proceed to examine the component parts of the animal, endeavouring to show how they ought to be formed to ensure good action, and pointing out those whose figure, qualities, and general appearance will recommend to preference.

CHAP. II.

ON THE FOOT.

AS the foot of the horse has to sustain so great a weight, we shall begin with this part; and particular attention should be paid to it, in choosing a horse. The foot ought rather to be of a round than a long form, and sufficiently large, but not out of proportion. The consequences attending too small a hoof are; first, the animal will stand unsteadily; secondly, the sensible foot will not be sufficiently protected; thirdly, he will become tender and crippled before, from the sensible part being too much exposed to stones and gravel, which the horse feeling acutely, will step with seeming caution and timidity, and will not put his feet forward courageously, as those with good hoofs and feet ought to do; but will creep in an aukward manner, as if walking on ice.

It has been observed, that the foot ought to

be of a round rather than a long form, because long feet are more liable to contract in the heel. There should be a good distance or depth from the centre of the coronet to the toe, and so round the whole circumference of the hoof to the heel; the crust, however, narrowing gradually, till it arrives at the heel, where it is narrowest of all. What are called mule-footed horses, namely, those that have very deep and high hoofs, scarcely ever become lame, or founder in the feet, because they have plenty of covering to protect the sensible hoof. The Arabian horses are almost all hoofed in this manner: but horses, thus hoofed, should bend their knees well, which is generally the case with Arabian horses; otherwise the hoof, being so long and deep, would not go clear of the ground, and their heels, being very high, would also be an obstacle to straightening the knee again; they would therefore, unless they have good action, trip, and come down.

A horse, whose foot is too long at the toe, should bend his knees and pastern joints well and freely, or there will be great danger of breaking them. If the foot of a horse be too

large, that is to say, dish-footed, and the hoof too broad and thin, it will be very detrimental to his action; the feet will interfere with each other, and he will cut before at the fetlocks and pastern joints. A horse with such a foot will soon be tired by its weight; and if out of condition, will entangle his legs, and occasion his falling; and when this happens, the rider's life will be in great danger, as the horse may roll on him; or even if he disengage himself, may receive a kick in the animal's efforts to rise; and many persons lose their lives by accidents of this sort.

Having examined the hoof all round outside, it now becomes necessary to examine the foot also, and to observe the sole and heel. The heel across at the extremities, should be open and wide. If the heel be too narrow, it is either naturally so, or occasioned by disease. If it be natural and sound also, it is of little consequence; but if from disease and contraction, it is a sufficient reason for rejecting the horse altogether. There may be some good horses with narrow heels, but the number will be found to be inconsiderable; and unless their action be good, which is seldom the case with

horses whose heels are thus formed, they never should be chosen for the cavalry or saddle. It should be carefully observed that the sole be neither flat, soft, nor depressed, which indicate that there is not sufficient strength to support the weight of the horse. The frog and bars should be hard, and free from every appearance of disease. The black or dark-coloured hoof is the best. The colour of the hoof is generally determined by that of the legs; white hoofs being almost invariably the attendants of white legs. The nearer the legs of chesnut horses approach to a blackish complexion, the harder and better will be the hoof. Bays and browns of all shades have invariably black legs, consequently good black hoofs. The firmness of the hoof is an essential object, from the protection which it affords to the sensible foot, as well as the strength necessary to support the rider, and to keep the shoe. Farriers, who are in the daily habit of paring hoofs, will confirm this position, as they well know, by the facility or difficulty of the operation, which hoofs are the best. There should be no signs of thickness or swelling at the junction of the hair and the hoof. This part is called the co-

ronet; and if any symptoms of this kind appear, the horse will soon have the ringbone. The hoof and the hair should unite closely all round.

Horses with low heels and long hoofs have not handsome feet; but it will be observed, that such horses generally bend and straighten their knees with freedom, and do not appear to be cramped in the shoulder. If a horse have white hoofs, with black spots round the coronet, it is a favourable sign, and the hoof will be sufficiently hard to keep the shoes; nor will there be any danger of his becoming tender-footed. Some horses have naturally very narrow heels; and the heels of others become contracted from bad shoeing, from the feet being kept too dry, from a weakness of the bars, and from various other causes. The bars form an acute angle in front of the frog at the heart of the foot, and join the wall or crust at the heel. The hoof or coffin of every horse's foot, as far as we see it externally, is divided thus:—The whole horny substance outside is called the wall or crust; the point in front at the ground is denominated the toe; the sides are called the quarters; and the upper part, join-

ing the hair, is termed the coronet. The sole is attached to the frog in the middle, the bars on each side forming an acute angle, and joining the quarters at the heels. The whole exterior horny substance, as well as the sole, incloses the sensible foot, and is called the hoof or coffin.

Some horses, as before observed, have narrow heels: these, though not desirable, are better than when they become close by mismanagement, disease, or a failure of the moisture which should flow from the sensible foot through the small nerves, pores, and arteries, for the nourishment of the horny and elastic substance which protects the sensible foot. When this nourishment fails, on account of the horse becoming disordered in his limbs, or from the feet being kept too dry, it hardens the crust too much; and by not receiving proper nourishment, the heels become contracted. If the hoof be taken from the foot of a horse as soon as he is dead, and hung up, it will contract, particularly at the heels or extremes of the quarters; whereas, if kept moist, it will retain its natural form and elasticity. This proves that the heels contract for

want of moisture and nourishment, and is the reason the feet have so many disorders. In very hot and sandy countries horses are generally mule-footed; the heel, however, in breadth, bearing a proper proportion to the foot. The cause of this seems to be, that the foot, being constantly in a heated state, from the warmth of the ground, the hoof gradually becomes hard; and the softest of the horny part being unable to receive, on account of its dryness, the subtile fluids that should pass to it, in order to give it moisture, they are stopped in their progress, and assimilate themselves to the more insensible parts of the sensible foot, or, in other words, to the most sensible parts of the hoof, unite with the upper part of the horny substance, and continue to deepen the crust till nature places a sufficient protection under the sensible foot, and until the heat of the ground is unable any longer to affect it.

All Arabian horses, and those of other hot climates, have their feet thus formed. Their heels are not close, though they appear so, as they are proportioned to the breadth of the foot. Asses, mules, and mule-footed horses never have any gumminess, cracks, or sores about

their heels, but their legs are clean and bony; the reason of which is, that the subtile juices, which cause breaking-out about the feet and heels of other horses, and which should give nourishment to the hoof and sensible foot, are retarded by a defect in the arteries which should convey them to the parts to which they are naturally destined. It may also be observed, that when the pasterns are affected, the hoofs begin to shrink and the heels to contract from privation of moisture.

CHAP. III.

HOW A HORSE OUGHT TO STAND.

THE standing position of a horse ought to be particularly attended to. Lead him out on an even piece of ground, place yourself before him, and observe the toes of his fore feet. They should point directly forward. If a horse turn his toes out, he will cut at the fetlocks, from the heel of one foot striking against the other, which no caution can prevent.

Horses, whose toes turn out in this manner, cut themselves very severely when they are out of condition, or fatigued; and it may frequently be observed that grooms put a strong ring of leather round the fetlock, to protect it: but this practice is dangerous, as it may occasion the animal to trip and come down. The best protection is a boot of leather laced close to the leg. Every person, therefore, who buys a horse, should carefully observe his manner of standing on his fore feet. Horses brush be-

hind, which is the same as cutting before; but the former is not of such consequence as the latter, as it is generally remarked that the fore and hind legs move in the same direction. When dealers purchase a horse whose fetlocks have been injured by cutting, they keep him in the stable till the wounds are healed; hence those who are unacquainted with the proper form of the animal too frequently become the dupes of artifice.

Some horses point their toes inwardly; but a greater number turn them out. There is an inconvenience, however, attending those of the former description; which is, that by twisting one foot over the other, the shoulders roll, and the rider is very much shaken: but there is no apprehension of cutting, unless the chest be too narrow. If this be the case, he is liable, on the extended trot, to give himself the speedy cut under the knee, and come down. A good horse, however, ought not to be rejected on account of turning his toes inwards.

The best standing position of a horse, therefore, is straight and upright, his toes pointing directly forward; and the reason is obvious; for

the animal thus formed supports himself and his burthen mathematically on every joint; but in the other cases, the weight of the horse falls unequally on his limbs, and he moves awkwardly and with difficulty. The same general rule holds with respect to men, and all other animals; distortion and bad formation injures action.

CHAP. IV.

ON THE LEGS.

THE leg of the horse is now to be considered; and, next to the foot, its exertions are the greatest; therefore it must be particularly attended to. A horse's leg should have strength proportioned to his body, that is to say, he should have a great deal of bone from the knee downward; and that part of the leg which is called the arm, viz. from the knee upwards, should be very strong and muscular. The lower part of the leg should be free from flesh at the fetlocks and pasterns, and clean and hard down to the hoof; for if the legs be too fleshy, they will, after severe exercise, puff and swell, and this, in a short time, will occasion cracked and broken heels, if they are not kept clean by being washed at least twice a day, and if care be not taken that they do not stand in their own dung water. The pastern ought not

to be too long; for if it be, the horse, though very pleasant to ride, will neither be strong nor speedy. The pastern, therefore, ought rather to be short and bony. The hair should be trimmed close from the legs of cavalry and saddle horses, for the following reasons; first, the legs and pasterns are more easily cleaned; secondly, the air acts more freely on the skin, renders it firm and hard, and braces the sinews; and lastly, it gives them a cleaner appearance about the legs. In a Treatise recently published, the author, in contradiction to the experience of ages, disapproves of cutting any of the hair from the legs of a horse, assigning for a reason, that the hair protects the heel from the sand and stones, which might injure it; but the fact is, the hair is injurious; and every person well acquainted with horses will bear testimony to the assertion, that those which have a great deal of hair on their legs and pasterns are the most liable to have cracked and greasy heels; and it may be observed, that the Arabians are the cleanest horses about the legs; for the hair is naturally so short on their legs and pasterns, that they have the appearance of having trim-

ruled close. The legs, when dry, should be rubbed at night with an oiled sponge, which will moisten them, and keep the skin soft and pliant. Large draught horses, and those used in agriculture, may have the hair left on their legs, but they ought to be well washed every night.

CHAP. V.

ON THE HIND FEET AND LEGS.

THE same observations will apply to the hind feet and legs as to the fore feet and legs of a horse, except that he may point his hind toes a little outward, without brushing, if he stand wide behind, and if his hoofs be not too large: but when that is the case, the animal, if he be cat-hammed or close, will certainly brush; and to prevent this as much as possible, a very different practice should be adopted in the operation of shoeing. In shoeing horses that brush much, the farrier generally makes the hind foot shoe thin inside, which throws the heels closer together: but if, instead of this, the shoes were made thicker inside than on the outside, the horse would stand wider, and be prevented from brushing. Horses most liable to brush are those which are called cat-hammed, that is, those which stand with their hind legs close

together like a cat. They are frequently very serviceable, and generally excel in a rising leap, for these reasons, that their hind legs, being close together, act more powerfully in support of each other than those which stand wide; and also that there is a better spring in their hams.

CHAP. VI.

ON THE HEAD, EARS, EYES, &c.

HAVING examined the feet and limbs of the horse, we shall proceed to the other extremities; for, as much is required in the feet and legs, in order that the horse may be able to support himself, and carry his rider with spirit, so also the head is a material object for consideration; for its shape and countenance very strongly indicate his spirit and temper. With respect to the head of a cavalry or saddle horse, it cannot be too small; and it may be laid down as a general maxim, that no horse with a large head and heavy cheek will ever answer for the purposes of the saddle. These marks pronounce him to be of a sluggish temper, and denote bad action and want of blood. The outline of a horse's face should be as strait as possible from the poll to the muzzle. A head thus formed will have a fine expressive

countenance, and be sprightly in action. The more elliptical and curved the line of the face, the more stupid and heavy will be the animal. The handsomest head is that of the English blood horse, which is shorter, and thicker round the eyes than the Arabian. The forehead is also flatter, and the outline of the face straighter. The Arabian's head is something longer, not so broad nor flat between the eyes, and a little narrower across the jaw-bone; the outline of the face also falls away from the straight, toward the muzzle.

The head of the common labouring horse is ugly, heavy, and void of expression; but it is of little consequence, as too much sensibility would be rather detrimental to horses designed for draught or agricultural purposes. Nothing is required of them but labour, and for this alone they are qualified by nature. The most common-shaped head to be found among horses of the coach size is what is called the Norman head, which is large, and the outline of the forehead more or less curved. Such horses would be of little use to the cavalry or for the saddle. The muzzle of every spirited horse is small, and his nostrils thin, red, and

wide when put into action. The jaw-bones ought to stand wide behind, close to the neck, in order that the windpipe and small of the neck may fall in between them, which gives him the power of carrying his head in a graceful manner without interruption to breathing.

A small head will never deceive the judgement. On such a head the ears are compact, and their motion quick and sprightly The eye is full, rather roundish, and of a fiery red; and in winking, the eyelids move with rapidity, which shews that the horse is in high health and spirits, and of good courage. The eye of a sluggish horse is always more long than round, heavy, and shews little of the white, which has a dull reddish cast, and the motion of the eyelids is very slow; their ears are heavy, loose, and insensible to noises of any kind.

When a horse is ill, his eye becomes faint and half closed, and he is altogether spiritless and dull. The heads of horses are variously set on, which is chiefly owing to the formation of the neck. Some necks fall away at the withers, and so on towards the ears. These are called goat-necked; star-gazers are such as throw their face quite upwards towards the

sky, and from an extraordinary elevation of the head while travelling, seem to view the heavens only; but they are generally sure footed, bend their knees well, and are good tempered. It may be also observed, that these horses frequently toss their heads up and down so as to throw the foam from their mouth into the rider's face; the cause of this motion is imagined to be a defect in the windpipe, arising from the form of the neck, which presses it at the ears and near the chest; and this motion is supposed to give facility to respiration.

Attempts have been made to remedy this unpleasantness by the use of a martingal, and by bracing the head tight down. This is not only an act of cruelty, but useless, as the defect is natural, and is as irremediable as cutting, or brushing. Fastening the head will cramp the motions of the horse, and deprive him of the flexibility which is necessary to his breathing freely. The only good that can result from such an experiment will be to prevent his throwing up the foam on his rider.

Horses of this description are generally long necked, rather fine mouthed, and consequently light in hand; but being cross made, they cannot be reckoned handsome.

CHAP. VII.

ON THE NECK.

THE handsomest neck is that which rises regularly from the withers upwards, and which, a little more than half way toward the ears, forms a curve, with a bold crest, until it ends close to the head, forming nearly an horizontal line. The smaller the upper part of the neck, the greater the beauty, and the horse exhibits more blood. When the hair of the mane is long and light, inclining to a natural curl, and the flesh hard and muscular, it indicates a good spirit. The neck, however, must not be too thin, nor seem as if it were too small and disproportioned to the body of a horse;—this is a sign of weakness: neither should it be too long, or too short; if the former, it also indicates weakness and delicacy; and unless the animal carries his forehand well up, he will droop his head when tired. A short, stiff and

fat neck is called a pig-neck, which denotes hardness of the mouth, and stubbornness of temper. When the neck of a horse falls away from the ears to the withers, and he has no crest, it is called a goat-neck, camel-neck, &c. and it is reckoned ugly. Such necks swell out greatly under the windpipe, and seem to be turned upside down, as the curve which ought to be above is underneath.

The neck cannot be too light at the small or setting on of the head; and it ought to increase gradually, until it arrives at the upper part of the fore-thighs or arms, and fall in flat with the shoulders.

What has been said on this subject alludes to the necks of mares and geldings only. The neck of an entire horse is generally more fleshy and muscular; but even some of these are much handsomer in this part than others, and not too thick, or too much loaded with spongy flesh.

CHAP. VIII.

ON THE CREST.

THE crest of a horse is the highest, and most curved or arched part of the neck, under the mane; and well made, spirited horses exhibit a proud and bold crest. A horse, however, with the finest possible crest may lose it, and become what is called crest-fallen; that is, his neck in this part under the hair loses its muscular power, and does not support the mane. This proceeds from low condition and too severe exercise. Good feeding and rest will restore a horse to his spirits and his strength in those parts. We may observe that all horses which show no crest are patient, dull, heavy, and spiritless; such are, for instance, the ass, the mule, the dromedary, the camel, and goat, or ewe-necked horses; they are, however, good enough for certain purposes, and suffering them to use their peculiar paces,

will perform slow work or drudgery exceedingly well; but in choosing for the cavalry or saddle, a horse should have an erect and bold crest, which is a sure sign of spirit and action.

CHAP. IX.

ON THE MOUTH.

EVERY part of the horse demonstrates some peculiar qualities, and none more than the mouth. A horse is reckoned hard mouthed when he bears much on the bit without obeying it, and is heavy in hand. This is extremely unpleasant, as well as painful and laborious to the rider, and such horses are generally sluggish, stubborn, and ill-tempered, thick necked, stiff, and aukward in their motions, easily frightened, very indifferent in their paces, and are perpetually gaping, and swallowing the bit. They are for the most part thick winded, or narrow in the windpipe, and they open their mouths to assist respiration. On the contrary, a horse with a fine mouth champs and plays with the bit briskly, vibrates his nose with quickness, and goes forward

with courage; he scarcely ever becomes restive, and does his work pleasantly. No exertion is required to manage such a horse, as the slightest check is understood by the animal, and the rider is instantly obeyed.

CHAP. X.

ON THE SHOULDER.

IN draught horses, the heavier and stronger the shoulder the better; but in saddle, cavalry, and curricle horses, quite the reverse. A horse for the latter purposes should have a light shoulder, as well as a light head and cheek; the shoulder ought to be very firm, hard, and muscular, falling off light and fine towards the withers. There are two sorts of shoulders; one called an upright shoulder, the other sloping gradually to the back: the shoulder blade bone of the former is very upright, seems to move stiffly, and has not the proper play for action: such a shoulder generally accompanies too wide a chest, is exceedingly thick, and loaded with superfluous flesh; it is a natural defect, and the horse with such a shoulder will never be fit for the saddle: he may do for slow purposes, such as carrying

timid or aged riders, but will not suit a more sprightly equestrian; besides, if hurried beyond a certain pace, the stiffness and weight of the shoulder, added to the burthen of his chest and the rider, will bring him down. Such a horse moves awkwardly and unpleasantly, as the weight of his forehand causes him to roll in the shoulders, which motion he communicates to his rider, who will sensibly feel it, and the more so when the animal begins to tire. Ease in the motions of a horse depends much on the facility with which he bends his knees, and the lightness of his shoulders. The shoulder being upright, the point of the blade bone (which in a well formed horse ought to fall off much towards the back) is depressed with difficulty, and as from the manner of its standing upright the knee is prevented from bending with facility, this causes the stiffness with which such horses move. Before the horse puts his foot forward, the pastern and fetlock joints must be bent, the knee joints, the joint at the extremity of the arm, that at the lower part of the shoulder in front, and the extreme point of the shoulder blade, which becomes depressed as the other joints contract;

and the facility of depression in this part depends on its falling backwards considerably towards the back bone. In a light shouldered horse, with the shoulder blade falling back, the reverse is the fact; he bends his knees with ease up to his chest, and puts his feet forward boldly and with courage, his motions are free and pleasant, he rides light in hand, and his shoulders do not roll, but play freely and agreeably under his rider. A horse, however, for a dead weight must have a heavy shoulder, and a wide and full chest, as nothing is required of him but strength; but horses intended for the saddle and the cavalry must be of the opposite description.

CHAP. XI.

ON THE CHEST.

MUCH depends on the chest of a cavalry or saddle horse with regard to his action.—Heavy chested horses never will go fast, nor be pleasant to ride. The chest ought not to be prominent nor loaded with flesh in a horse intended for the saddle or light harness; it should go down straight from the extremity of the neck to the upper part of the arms, nor should it seem to shake or labour when the animal is in motion. A horse with a heavy chest is generally coarse made; and if driven beyond a certain pace will labour and sweat profusely, which is unpleasant to the rider, particularly in warm weather. A hard, coarse mouth is also the usual accompaniment of a chest so formed; such a chest, therefore, in chusing a cavalry or saddle horse, must be avoided.

CHAP. XII.

ON THE BOSOM.

THE bosom of a horse is that part which lies immediately between the arms, and great care must be taken in observing its form. It ought not to be too wide, as a horse with such a bosom never can go with speed, particularly in that pace called the trot; because if the bosom be too wide it is impossible for the animal to throw his hind legs clear outside of the fore legs, and unless the former are thrown in the manner now described, he can never be a fast trotter, as he will, if weak and long in the pasterns, strike the shoe of the hind foot against the shoe of the fore foot, (which is called clapping or over-reaching,) especially if the road be covered with stiff clay, which impedes the action of the fore feet. Horses with too little bone for their carcase, with long pasterns, and which go as above described, are

liable to this impediment both in trotting and walking. Too wide a bosom, if you look at a horse in front, will have a semicircular appearance at top. Such a bosom will do well enough for a draught horse, or such a one as is not required to have much speed. The best bosom for a saddle horse is that which is neither too wide nor too narrow. We have described the consequences of the wide bosom above, and the consequences of the too narrow will be that the animal will scald there, be weak, and if he does not stand very fair on his feet and legs, he will cut severely before at the fetlocks, perhaps trip and come down: the bosom, therefore, ought to be in a medium between the two already described. Above, it ought to have the appearance of a Gothic arch, narrowing gradually towards the top. Provided a horse stands very straight on his limbs, with his toes pointed right forward, the narrowness of the chest is not of so much consequence; but if this be not the case, or that he point his toes out, it then becomes a serious detriment to him.

CHAP. XIII.

ON THE FOREHAND.

SPEAKING of a horse generally, we divide him into fore and hind quarters. The fore quarters are called the forehand, and may be said to comprehend one half of the horse from the coupling of the back to the tips of the ears, and the muzzle. A horse is said to be regularly and properly formed when his forehand is, in the language of jockeys, well up, namely, when he stands somewhat higher at the shoulders and the withers than at the croupe; and when his head is erect, his neck regularly curved and lofty, and the whole of the forehand upright and shewy. So much depends on the forehand, that all good judges of horses make this the first object of consideration, beginning with the countenance, and

examining his ears, neck, shoulders, legs, and feet. Whenever a person well skilled in horses finds those points meet his ideas, he takes it for granted that every other part will correspond. The figure of a horse thus formed is by far the best, for various reasons. His forehand being well up, shews that he has blood and spirit, for there is nothing demonstrates so strongly the sluggishness of the animal as a drooping, heavy, and low forehand, and it is a technical expression amongst dealers that such a horse carries his ends well; that is, his head, forehand, and tail. The forehand, therefore, must be well observed by those who buy horses, and this, with the bending well of the knees and pastern joints, greatly determines the goodness of the animal. Those who have observed dealers when they wish to shew their horses to advantage, may have seen that they always shew them with the fore feet standing on rising ground, and they pinch him tight at the mouth with the bit, which rouzes his spirits, if he have any, and makes him throw his head lofty; besides, they whip their horses into this attitude before they are shewn to purchasers, and they stand in this position imme-

diately they are brought out. But the fair way to examine a horse is, to lead him out quietly and coolly without frightening him, and let him stand, not on a rising ground, as is the usual custom, but on a level piece of ground. It should also be observed, that there is another reason for shewing a horse with his head and forehand on a rising ground, which is, that this attitude causes the bowels of the animal to fall backwards, and makes his quarters seem full and round, which, if he stood on a level, would be seen more naturally and fairly than in the position described.

Another strong reason for having the forehand well up is that the saddle will not slip too forward on the shoulders, which cannot be kept back on a horse with a low forehand, except by means of a crupper, which has not a good appearance on a gentleman's horse, but must be always used in the cavalry: and the weight of the rider being thrown too much on the points of the shoulders, will cramp the motions of the horse, over-balanced before, and cause him to come down. A crupper, it is true, is the only remedy, but, independent of its appearance, it is unpleasant to the horse,

and chafes him under the tail in hot weather, in spite of every precaution, as a great part of the weight presses on the crupper of a horse whose forehand sinks; and this is easily observable in the cavalry, as the horses consist of those with low forehands as well as those that are well up. These observations, therefore, will serve as a guide to those who purchase horses for themselves, and who may wish to rely on their own judgment.

CHAP. XIV.

ON THE BACK.

AS it is necessary to observe every part of a horse before we can determine on his qualities, the back must not pass unnoticed. It is a very important part, and much depends on its formation. The finest shape for a horse's back is nearly straight, and round above, and so short that there is scarcely room for the saddle from the shoulder to the kidneys. This kind of back shews that the horse is strong and active; it denotes also that he has strength in the quarters, and has sufficient command of his limbs. A horse thus formed will be powerful all over, and is generally superior in his paces and action: on the contrary, a horse with a long back is ordinary to the eye, weak, generally without action, and has no command of his limbs, [illegible] heavily and unpleasantly, and is unfit for long journies. The

only pace of consequence in a long-backed horse is the walk, which is the result of long legs, always the accompaniment of length in the back: but those who are fond of good horses should never choose one with a long back, for the reasons here adduced, and which will, generally speaking, be found to be correct.

CHAP. XV.

ON THE QUARTERS.

THE quarters of a horse comprehend the hind parts, about the kidneys, &c. If a horse be not full and strong made here, he should be rejected, as the contrary evinces weakness, and he will drag his hind legs after him in a loose and slovenly manner. The weakness of the quarters will be also observable in the drooping of the tail, which denotes that the spine is defective about the kidneys. Horses with long backs are usually weak in the quarters, in the joints of the hips, the hams or hocks, and so on to the feet; and it may be observed that the hind feet shoes and hoofs are worn away very much at the point of the toes, which is done by dragging the feet along the road. When horses are much fatigued, they frequently bend the hind feet totally back, and are in danger of falling, and spraining the hinder joints a

the fetlocks, in consequence of weak quarters, which ought therefore to be full, round, and broad across at the kidneys.

In order to know if a horse be strong in the quarters, he must be examined about the kidneys, flanks and haunch bones, by standing across and behind him, and by taking a survey from the tail to the shoulder, by observing also that he is full and round, and that his haunch bones do not shew themselves, but that he is strong and plump towards the coupling of the back; and if so, his strength in the quarters may be depended on. For hard work, it is necessary that horses should be strong in this part, particularly for the dragoon service, as a considerable weight must be borne on their quarters.

CHAP. XVI.

ON THE BELLY.

THERE is not much to be said on this part of the animal. The belly of a good horse ought to be round underneath the quarters, and nearly so at the fore legs, where it should spread a little, and be somewhat thicker at the girth than at the kidneys. A good horse ought to have a full and strong carcase, otherwise he will have but indifferent command of his legs, and consequently little or no action. Horses that are herring-bellied, that is, whose ribs are flat instead of round, are generally extremely weak, and are seldom approved. When the ribs are flat, the belly is much sunk and encumbered. If the belly be too much shrunk, and is small, it shews that the horse is not in good health, and that he feeds poorly.

CHAP. XVII.

ON THE HIPS.

THE hips of a horse properly formed are semicircular, or nearly round, without any projection of the hip bones towards the tail. Horses whose hips form a curve in this manner will always have a good appearance, and are, in fact, stronger in the quarters than those that are cross made and high boned. A drooping rumped and high-boned horse will never look handsome, and if in bad condition, will have a miserable appearance; besides, as round and plump hips always denote compactness of figure, and strength of body, so, on the contrary, a projecting rump and high bones shew that the horse is loosely formed, and unfit for the purposes of the saddle.

CHAP. XVIII.

ON THE TAIL.

AS the head at one extremity is the principal part of the horse from which we may form a judgmeut of his temper and the action of his forehand, so at the other the tail exhibits, in a great degree, the strength and action of his hind quarters. When a horse has been docked, nicked, and thrown up well, if the operations are performed properly, he will carry his tail very high, should he be an animal of spirit, which shews that he is strong in the spine and quarters; and so much depends on this, that a bad horse never carries his head and tail well. Horse dealers are so much aware of this, that they decide on the judgment of a purchaser by his examination of this point; they therefore have recourse to what is called figging, (an operation too well known to need

describing here,) which creates an artificial sprightliness in the tail, and causes its extension: this the dealers contrive to do by stealth; and some men are so dexterous in the operation, that in spite of the utmost vigilance they will effect it. If, after the horse is led out to be shewn, the tail is observed to quiver, the motion is caused by the warm sensation produced by the ginger, and the irritation causes him to evacuate immediately. In a short time, however, the effect of this operation ceases, and the artificial vigour of the tail is succeeded by its natural depression.

The tail, however, determines in a great degree the courage and temper of the animal; the more spirited he is he will carry his tail the higher and farther from his posteriors. Indifferent horses always contract their tails close to the hips, but spirited ones, even before their tails are either cocked, or nicked, or are submitted to any other operation, will, when stimulated to exertion, throw up their tails in a superior and handsome manner.

The tail of a horse is so certain a sign of the strength or weakness of the back, and of other qualities, that by observing it, the judge-

ment may be formed almost instantaneously. It is a sure prognostication of weakness in the back when he shifts his tail from one side to the other. After a long or severe journey, unless a horse has good spirits, he will drop his tail, which shews his imbecility. By a journey of forty or fifty miles, however, the qualities of a horse will in general be ascertained. In lifting the tail, if the animal be spirited, it will yield to little force ; but the more exertion is used to raise the tail of a dull horse, the closer he will draw it to his hips; and by persisting, it not unfrequently happens that those who make the attempt suffer severely from kicking.

The bone of the tail should not be too thick, nor loaded with much flesh or hair, which indicate dullness, and want of spirit. It should be flexible, easy to take up when required, and sufficiently covered with soft and flowing hair. Some horses have little or no hair on their tails. These are called rat-tailed horses, and are generally of the best kind. Their fiery and spirited constitution is the cause of so little hair growing on that part. Horses with such tails, however, though they are by no means handsome,

are rather to be desired than objected to on that account. The demand for rat-tailed horses was some time since so general, that many were cut so as to resemble the natural ones: but such transformation of the tail was truly ridiculous, as it neither added to the horse's beauty, nor to his goodness or action. The tail, therefore, is to be considered as a member of the horse which will much assist the judgment of the purchaser, if he be not deceived by the operation of figging.

CHAP. XIX.

ON THE BODY, OR CARCASE.

THE horse, with respect to his body or carcase, ought to be full in the quarters, round in the hips and belly, and nearly straight in the back; and when he stands on a level piece of ground, his shoulders and forehand should be higher than his quarters. This is the most proper form for a horse intended for the cavalry, the road, or the field; but racers, and such as are chosen for swiftness, are of a different description. The latter ought to be, and usually are, shaped more like a grey-hound, rather flat in the ribs, and their heads and noses stretch more forward while in the act of running. This form of the head and neck is indispensable to velocity in every animal; and the reason that may be assigned for it is, that the straightness of the windpipe contributes to facility of respiration. This extension of the

neck gives an aukwardness to the general appearance of the race-horse: however, as he is never used for any other purpose than for speed, his want of beauty is of no consequence. Length of back and bone, loose ribs and quarters, and stretched neck, are his essential qualifications; but a contrary figure only is adapted to those horses which are more immediately the subject of this Treatise.

CHAP. XX.

ON THE EYES.

THE eyes of horses are not more various in their colours than those of the human species, and that variety is less distinguishable. They are nearly all of a darkish cast, except the wall eye. The shape and size of the eye is of more importance than the colour. The wall eye, though not handsome to look at, is much esteemed, as the paces of a wall-eyed horse are generally good; his temper is irregular and various, yet not so much so as to be unmanageable. Large and heavy eyes denote dullness; but when too small and oblong, it indicates weakness of body and of sight. The middle-sized eye is best, and the more circular the better, for it shews that the sight of the eye

is strong, and does not fear the light. This eye is best, from its losing none of the rays of light that fall on its surface, and is capable of receiving more of them than that of the oblong shape. The same observation is applicable to the human vision; for the eyelids of short and weak-sighted men are always nearly half closed. All birds and other animals with circular eyes are usually quick sighted.

The eyelids of a horse should open and shut with quickness, which is a proof that the horse is vigorous and healthy, and the nerves of the eye strong. To ascertain whether the sight be good, the hand should be placed upon one eye so as to blindfold it, and the finger moved backwards and forwards before the other, and sometimes pointed directly at it; and if the sight be quick and good, the horse will wink very fast when he perceives the finger approach him. This should always be done, as eyes which are nearly blind frequently look very well.

The circle that surrounds the eye should not be too fleshy, as it denotes the horse to be of a heavy and vicious temper; the thinner the circle, the quicker and more easily will

it be moved; and not only will the eye be a shorter time in the dark, but be oftener refreshed by the moisture contained under the eyelids.

CHAP. XXI.

ON COLOUR.

COLOUR, though only a superficial quality, is nevertheless of considerable importance in the choice of horses. The colour of all animals is, generally speaking, so intimately connected with the internal properties of the object to which it belongs, that it seems to be inseparable, and to indicate its qualities. The observation applies also to vegetable and mineral, as well as to animal substances. Each class has, in a great degree, its peculiar colour, though there may be, and certainly are, some exceptions. The general colours of horses are the chesnut, the bay, and the black, with their different shades; but the two former are by far the most common. Black is a colour peculiar to horses of the heavy draft kind. Grey horses are by no means numerous; and much less so are those of a dun or mouse-colour; and the

pyeball is rarely to be seen. It is a common, but a just remark, that a good horse cannot have a bad colour; for though the eye may not be gratified by external appearance, the satisfaction that results from reliance on the good qualities of the animal is more than sufficient to counterbalance any disagreeableness in his complexion.

Horses in greatest request are those of the various shades of brown, bay, and chesnut, as they are generally of a more hardy nature, and the colour of the mane and tail is different to that of the body. Black horses fit for the cavalry or saddle are seldom to be met with. The dark iron grey is the next in preference: but in choosing a horse of this colour, it should be carefully observed that the hips and hinder parts are not of a mixed and reddish hue, as he is not to be depended on. Grey horses of every description, as they advance in years, become gradually lighter, and at the age of eight or nine are almost entirely white. They are for the most part of delicate and tender constitutions, and difficult to be kept clean, without washing, which makes them liable to

colds; and from natural softness in the hoofs the shoes are not long sustained.

There is a whole regiment mounted on grey horses, called the Scotch Greys; they look very showy, and the effect is pleasing, but they take great pains in grooming them; and it is generally understood that this regiment is obliged to be oftener supplied with fresh horses than any other in his Majesty's service, which plainly proves they are not of a durable sort. Grey horses are not allowed in any other regiments of cavalry, except for the use of the trumpeters. When grey horses are used in the European armies, they are never selected in reconnoitring or advanced parties, as they are more apt to be sooner noticed by the enemy than any other colour; and when used from necessity, and an army is obliged to retreat, the greys are generally stationed in the rear, and on eminences, to give the enemy an idea that the retreating army is much stronger than it really is, as the appearance makes them seem more numerous.

The grey colour is more prevalent among the Arabian horses than in Europe, but this is chiefly the dark iron grey. I have read a

treatise on horses, which endeavoured to prove that this colour in horses was the effect of slavery, and that the original colour was either black, bay, brown, or chesnut; but this assertion can never be maintained; for if it were true, the whole race now in use throughout the universe would have degenerated into that colour; beside, the horse not being a rational animal, what knowledge can he have of loss of liberty, provided he be well fed and taken care of? And it must be observed that the colour now in question prevails among the finest of the breed, in Arabia, Persia, and Tartary, where they enjoy the greatest freedom. The dun colour is very scarce; but it is of little consequence, as a good horse of this colour is seldom to be met with.

The pyeballed horse, which is either white and black, or white and bay or chesnut, in large flakes or spots, is very scarce, and seems not to belong to any particular colour, but is a sort of lusus naturæ, which has no fixed colour, but is merely the production of chance.

To the colours already enumerated may be added the cream coloured and the roan. Those used in his Majesty's state carriage are of the

former colour. They are not natives of this island, but are brought from the Dutchy of Holstein in Germany, Hanover, or Arabia. Horses of this colour are exceedingly delicate, gentle in their disposition, proud and shewy in their paces, have light forehands, and are fine mouthed, but not adapted to much hardship. The roan is not a colour of itself, but is the effect of chesnut, bay, brown, or black, blended with white on the extremes of the hair. A black roan, though the hair consists of white and black, is quite different from the iron grey, the white in the former lying principally on the points of the hair, and exhibiting such an appearance as if a shower of snow had fallen on a black horse; but in the latter, the white and black hairs are mixed quite through to the roots. Roans in all colours frequently have this appearance, and sometimes their hair is mixed like that of grey horses. All other colours interspersed, or covered partly with white, form the roan, with the exception of black, which, when it is regularly mixed to the roots of the hair, forms either a lighter or darker grey, in proportion to the quantity of white; but when the white appears principally on the surface of the hair, it is called a black roan.

Roan horses are not numerous, but are generally possessed of excellent qualities.—Nature in her capriciousness has given various colours of hair and complexion to mankind, and to animals of every description. There is a great deal of expression in the hair, and its colour in a great degree determines the character and disposition of men, as well as horses and other animals.

I cannot close this chapter without adverting to the opinions of the Duke of Newcastle and a variety of other writers on horses, who seem to ridicule the idea of taking the colour into consideration in determining their good or bad qualities. They must indeed have been superficial observers of horses who have not discovered how much the colour of horses, generally speaking, indicates their spirit, durability, and value. Every farrier well knows that white legs and white feet always have soft hoofs, and are unable to keep the shoes. In the human race, white hair denotes a feeble constitution; auburn, brown, and the darker shades, indicate hardiness and strength. White cocks are not esteemed by sportsmen, as they are tender, and never fight well; and the breeders of cat-

tle are aware that white bulls or cows are by no means the best. The hair, therefore, ought to have a greater weight in determining our choice in horses than many are disposed to allow. The colour of the hair proceeds from the internal constitution and qualities of the animal; and though we cannot trace this to its primary cause, yet it is not the less true.

CHAP. XXII.

ON THE COLOUR OF THE FACE.

ALMOST all horses have more or less white in their faces. A little of it enlivens the countenance, and gives it expression, but too much causes the face to look glaring and unmeaning, and is a great drawback to the beauty of the animal. The countenance of a horse, as well as of a man, expresses, in a great degree, his qualities and temper. Lavater, whose skill in physiognomy is undoubted, attributes to the face the power of expressing our mental propensities, and has established beyond contradiction that the countenance of men, as well as animals, is the true index of their habits and their nature. Some horses have no white in the face, but they are few in number. Asses and mules, which are heavy and sluggish, have no white in their faces; and the want of this lively colour in the face of a horse, seems to

indicate that he also partakes of those indolent qualities; but good action removes every prejudice arising from the colour of the animal. A small blaze in the forehead and snip on the nose, or a star in the forehead and snip on the nose, or a small star without any more white, are accounted the handsomest marks of the face. Too much white about the muzzle shews the horse to have a tender and indifferent mouth; the consequence of which will be that he will masticate slowly. Too much white in any animal denotes delicacy of constitution, and weakness of body; and a horse with a white face has generally white legs or white feet, which, as before observed, are reasons for rejecting him. Though such horses, however, are not desirable for either cavalry, saddle, or pleasure horses, they will answer very well for a variety of other useful purposes.

CHAP. XXIII.

ON CROPPING AND FOXING.

THE only reason that can be assigned for cropping horses is, to improve their appearance; and this operation is performed on those particularly that have heavy ears, or what are commonly called sow ears; but as many people crop their horses from caprice only, be their ears ever so handsome, it is necessary, with deference to the better judgment of others, to point out what horses the process of cropping would become, as well as the form in which the ears ought to be cropped to shew the neck and head to advantage, and to improve the general appearance of the horse.

If a heavy-eared horse be badly formed about the neck, cropping will not improve, but, on the contrary, disfigure him. If he has a fine, regularly curved neck, rising gradually from the withers to the crest, and terminating

boldly at the ears, cropping will greatly improve him, and the closer it is performed the better; therefore it is preferable, on the whole, to leave his ears as nature formed them.

A short-backed, compact horse, of good courage, and his neck formed as above, will look exceeding well if he be cropped, and will have a very bold and warlike appearance; but that this effect may be produced by the operation of cropping, it must be done in a particular manner.

In cropping horses, those who perform it affect to give the ears the appearance of natural ones by pointing them at the top; and from the resemblance they bear to foxes' ears, it is called foxing; but this has not the effect of giving the animal a bold, courageous look, so much as if the ears were quite rounded at top; that is, when the ears are cut right across, and rather close, and the corners rounded off instead of being carried to a point. After a horse has been cropped, no hair should ever be cut from the inside of the ears; but if the hair grows longer than the ears, it should be cut even with them, but never inside, for the two following reasons: first, that the hair

ought to be left to protect the ears from dust, flies, fine sand, and other objects which are troublesome to the animal when his ears are deprived of the protection of the hair:—secondly, when the ears are trimmed too close inside, the horse is apt to take cold in the head and brain; the hair is also a protection against rain, snow, and hail, which fall into the ears of a cropped horse. The practice of trimming the ears inside, which is very common, indeed almost general, ought to be entirely exploded; for the animal would look much handsomer if only trimmed close to the surface. Though this may not strike at first view, the fact is no less evident.

CHAP. XXIV.

ON STANDING.

THAT a horse should stand well on his legs is of the greatest consequence, and though in this position the animal be completely at rest, yet a proficient can readily tell whether the horse be good or bad before he even stirs a foot. Observe, when a horse stands, that he does not draw his legs under him, with his chest projecting, his knees crippled or bent, and his legs arched as if he were preparing to lie down. The reason of his standing thus is from stiffness in the knees, and too great an uprightness in his shoulders, the points not falling backwards as before described. This position he will retain when he is in motion; his forehand will project too much; and by throwing the weight of the body too forward he will most likely come down. Another reason why a horse stands in this manner is from

a contraction of the back sinews or flexors, which has been occasioned by too great exertion. This happens chiefly to horses that have been worked hard, and particularly to such as have been used in a draught or harness, and is very perceptible in most of the hackney-coach horses, which are submitted to much hardship as well as severe labour. The flexors or back sinews being extended beyond their proper length, they become strained, and shrink up; and it is impossible for the animal ever after to stand straight on his joints. Horses, therefore, that are used in harness, if they have been worked hard, are rendered unfit for the saddle; and all those who esteem their horses for the purpose of riding, should never put them in harness, as it spoils them. Very little can be done to cure, or even to assist this contraction, if it be very bad. Some put on shoes with very long toes, which make the horse stretch the back sinews when he is walked gently; rub the knee joints with oils and spirits, pare the heels down a good deal, and make their shoes low behind: however when a horse is thus crippled, all idea of using him as a saddle-horse should be abandoned, as he will certainly

come down with his rider. Yet he may be useful in harness, or for agricultural purposes; and to preserve him as erect as possible on his legs, he should never be shod high behind, nor have his shoes turned up, except in frosty weather, when it cannot be dispensed with.

The proper position of standing, and into which a good horse will naturally put himself, is, with his fore legs placed well forward, his knees of course straightened, and quite flat on the cap or front of the knee joint, and, as good judges term it, standing on as much ground as possible. When a horse comes fresh out of the stable, he should never incline to stand on any three legs at a time, easing as it were the other, which shews that he feels some pain in it. If he does this after a long journey, when he is fatigued, it is not of much consequence, as it is then done for the purpose of resting himself. The toes of the horse in this position, as before observed, ought to point straight forward. Most of the Arabian horses stand with their legs a good deal under them. However this is not owing to any natural defect, but to their being tied by the fore feet when young, which gives them this attitude, and which

certainly, as it is unnatural, does them no service, though it is not perceptible when put into action; their forehand too being well up, the weight is thrown off the shoulders.

When standing behind a horse, if his fore legs can be seen from the lower extremity of the arms down to the hoofs, through the space between his hind legs, he stands well both behind and before, and is not cat hammed, which, though not very objectionable, is by no means desirable. The feet should nearly approach each other, but the space between the legs should widen upwards to the bosom; the toes of the hind feet ought to point directly forward, in the same manner as the fore feet, or nearly so. The toes of the fore feet should never, on any consideration, point outwards, for, as before observed, this is a most unerring sign that he will cut. It is not very material if the toes point a little inward, many fine horses having their feet thus formed; but it is by far best that the toe should point fairly forward, as in trotting the knees bend freely before; and in choosing a horse, notice should be taken that he bends his hind pasterns actively and quick, and that he do not drag his hind feet along,

so as to wear away part of the hoof as well as the shoe. This arises from the hind quarters being too long, and from a weakness in the quarters and in all the joints which by their united action produce the motion of the hinder part of the animal. This is more discernible in the action of the pastern than in any of the joints higher up. It may be observed, that after a long journey a horse drags his feet considerably, moves more slowly, and rests longer on the step than when fresh. The hind joints having become tired and weak, the horse has not the same power of bending them; he therefore raises his croupe higher, and drags his legs along as if they had no joints; and horses that are naturally weak exhibit such action, even when fresh, in a greater or less degree.

CHAP. XXV.

ON THE WALK.

THE natural paces of a horse are the walk, the trot, and the gallop. In walking, every horse invariably lifts two legs on the same side, beginning with the hind leg first. For instance, he lifts his off hind foot and puts it forward, and nearly at the time he sets it down lifts his off fore foot and puts it forward, setting down the hind foot near where the fore foot stood, which passes over or falls short of the place where the fore foot stood in proportion as his walk is more or less accelerated. Sometimes he places it exactly in the track of the fore foot. The fore foot which he first lifted he sets down a step before the fore foot which remained at rest. As he is putting down this foot, which for example we suppose to be the off fore foot, he lifts the near hind foot and puts it forward near to where the fore foot

stood, which he lifts and puts down before his off fore foot, and so on; which is the exact motion of a horse's legs in walking. In the walk, as well as in all the other paces of the horse, the hind quarters propel the fore ones, and put them in action, the hind quarters and hind legs always pressing forward, and putting the fore land in motion; because the whole power of action in every horse lies from his centre backwards. When a horse is brought close to a ditch, or bar, for the purpose of leaping over it, he can never lift up his fore hand until he brings his hind legs and quarters forwards close to the fore ones, which shews that it is in the hind quarters that the seat of action is principally fixed, though it is to the countenance that we must look for spirit and temper. The quarters of a horse are the same to him as a rudder is to a ship, or the tail to a fish, by pressing which against the water, it is forced forward. To prove this still further, tie the fore legs of a horse, and observe his motion; he cannot move the fore quarters until he brings the hind legs quite close to the fore ones. From this it is evident that though a horse determines himself to action from the

fore parts, it is the hind that act as the propelling power, and by which the action is continued. Horses differ in their method of walking. Some horses over-reach considerably; that is, they put their hind feet a good distance past where their fore feet stood; others put them down nearly where they stood; and many about half way between. The speediest walkers are those which over-reach, provided they have a good deal of muscular action. One horse, however, may walk in all these different ways as he is more or less pressed by the rider. Horses usually walk best when they are somewhat tired. When a horse is brought out fresh he is apt to strike into the trot, or gallop; for which reason sporting men, who make wagers that a horse will walk, trot, and gallop a certain number of miles in a given time, a third of which is to be performed in each pace, begin, or at least ought always to begin, with the gallop, and finish with the walk.

The walk is that pace of a horse in which he has the least exertion; it is the pleasantest pace particularly for a person in a state of convalescence, who wishing to take air and exercise,

cannot bear the less easy paces of the animal. In walking, great care ought to be taken that a horse does not come down, as in this pace he is much off his guard; let him therefore feel the bit gently, so as to remind him of his duty. Horses differ just as much in their walk as they do in their other paces; some horses will walk five miles in the hour, whilst others will not exceed three and a half. Lengthy horses are the best walkers, if they are bony and well set up. The walking pace is exceedingly useful, and it is that by which all work is executed that is of a laborious nature, except that of the flying artillery, which is performed on the trot, canter, and slow gallop, in order to accompany the movements of the light dragoons. The work of gentlemen's carriages must be excepted also, which is done chiefly on the trot. The walk, therefore, is a pace adapted as well to pleasure as to laborious purposes.

CHAP. XXVI.

ON THE TROT.

IN all the natural paces of the horse he supports himself transversely, or crosswise, but in the trot this is most perceptible. In the action of the trot, two of his feet are suspended or poised in the air, and two of them continue on the ground; the off fore foot and near hind foot, or near fore foot and off hind foot, diagonally. When you wish to put a horse forward on the trot from the walk, slacken your reins a little, and press your horse's sides gently with both your legs at the same time; the horse, knowing your intention, will advance the hind leg of that side which in the walk did not lead, sooner than he would otherwise have done, and at the same instant he will move forward the fore leg of that side with which, in the walk, he had begun to lead, viz. a hind leg and fore leg at the same time, cross-

wise and alternately. This is the true position of the legs and the action of a regular trot.

A horse may perform the trot in a variety of ways. The first is the extended trot, namely, when a horse is pressed forward at his full speed in this pace. From this, which is the foundation of the trot, we proceed to the supple trot. When a horse is put forward on the extended trot, you check him gradually, and instead of permitting him to put his feet as far forward as he possibly can, you oblige him to put them down more under him, to contract his body more, and to spring and play more on the pasterns. The next is the even or jog trot, in which he puts his hind feet down about half way from where they stood toward the fore feet, and continues so in a regular and even pace. In the extended trot you permit a horse to go forward with his whole spirit and fire; in the supple you check and constrain him in his speed, causing him to display his action and spirit, not in going forward, but in springing and playing on his pasterns and other joints; and in the even or equal trot, you suffer his spirit to cool and abate, and to proceed with an even pace.

The trot is a very useful and grand pace in a horse that can perform it well, that is handsome and compact in his make, bends his knee well, and goes forward in a bold stile; but there are few horses that excel in this pace in any eminent degree. The generality of horses cannot trot more than seven or eight miles within the hour, but no horse can be called a proper trotting horse that cannot accomplish twelve, thirteen, fourteen, or fifteen miles, occasionally, within that time, when necessity requires it; and a horse capable of doing this will always be the pleasantest to ride in an easier pace, and will afford much more pleasure and satisfaction in riding him than one of those heavy, stiff animals, incapable of any thing but a slow pace. A horse, however, that can trot nine, ten, or eleven miles in the hour, is accounted very fair, particularly if he execute it in a handsome and spirited stile, and goes light in hand.

To choose a fast trotting horse, you must take care to observe that he stands wide behind, and in the act of trotting throws his hind feet quite clear of the fore feet, outside, and very far past them; he must not be too

wide in the chest; for if he be, this spreads his fore legs too far asunder, and renders it impossible for him to throw the hind legs outside the fore ones; and it is consequently impossible for a horse of this form ever to exceed eight, nine, or ten miles in the hour; but this he may do in a good stile.

A good trotting horse ought to bend his knees well up to his chest, be supple in all the forehand joints, and throw his feet forward courageously, alighting a little on the heel, and springing from the toe. There are some horses that bend their knees very well, but do not put their feet boldly forward. This arises from a defect in the joints of the knees, which are so formed as not to be capable of straightening; and sometimes from a stiffness and contraction of the back tendon, which will not suffer the knee to become straight again after bending. Such horses step very heavy; for instead of using their strength in getting forward, they come down with their whole weight at a short distance from their last step. The Holstein, Hanoverian, and most of the continental horses, chiefly move in this stile, except that they straighten the knee better after bending it,

and spring more on their pasterns than the horses above alluded to. The former is the stiff trot, the latter the supple; this is a safe, handsome, and showy pace, as they go well above the ground; and all horses that move in this manner stand close behind, and consequently can never be fast on the trot, and there is never any danger of their coming down. Horses so formed always have their forehand well up, and look handsome. Those that trot too fast cannot perform it in a handsome stile, as the great exertion distorts their symmetry, and destroys the beauty of the pace and the grandeur of their action.

The handsomest trotting horses are those which trot from eight to ten miles within the hour, which is quite speed enough for the generality of weights. There are horses (though not many) that will trot a mile in two minutes and a half or three minutes, but it would be impossible to continue it for the whole hour without the destruction of the animal*.

* A little black galloway mare, the property of Sir Richard Hill's groom, would, in what is called the running trot, go at the rate of twenty miles an hour; and

A horse that goes close to the ground in his trot is very unsafe to ride, as he runs the risk of tripping, and consequently coming down. His going close to the ground is owing to the stiffness of his knees and other fore joints, and the uprightness of the shoulders, the point of which is extremely difficult in depression, which prevents the animal from bending his knees and pastern joints according to his intention: his toe, therefore, is some obstacle in the way, and the weight of his forehand, added to that of the rider, brings him down, and the rider runs the risk of breaking his neck at the same time that his horse break his knees. Some horses, when they fall on their knees, roll on their noses and foreheads, and it is almost impossible to recover them until they either fall sideways on the legs of the rider, or perhaps roll upon him, and cause his instant death. No person should ride a stumbling, broken-kneed horse; for if he has once come down, it is certain he will do it again, as the skin of the knee, having been once cut, becomes more stiff and contracted than it was originally, and the knee

was supposed to be equal, if not superior, to the celebrated mare Phenomenon.

consequently more difficult to bend. Of all the fore joints, the knee suffers most when a horse falls. The only safe way to ride a broken kneed horse is to put him on his mettle, and to keep him on the canter, and then there is but little to apprehend; but he never should be suffered to trot, particularly in an easy or careless manner. Many persons have lost their lives for want of knowledge in choosing a saddle horse, and by not being aware of the danger of riding a broken kneed one, particularly if the rider be heavy; for a great weight is sure to occasion a horse's falling, unless he be particularly sure-footed. A horse that has been down may be used with a degree of safety in harness, as he has no weight on his shoulders; but if it can be avoided, it were better never to use such a one as a saddle horse. When a dealer purchases a horse that has been down, he frequently passes him off to some one who knows nothing of the evil consequences of such a blemish, by saying that it was an accident in hunting, from the stump of a bush, or from some similar cause; but it were adviseable never to have any thing to do with a horse of this description, or that has

the least scratch or blemish about the knees. In choosing a saddle horse, therefore, let the purchaser order him to be mounted, and rode away from him on the trot; if he throws his hind feet wide, and clear of his fore feet, he will trot well and fast. Then let him be turned round at about the distance of two or three hundred yards, and brought up to him on the trot, and let him observe that he points his toes right forward; then there will be no danger of his cutting, but if he points either one or both of his toes out, he will certainly cut before. Lastly, stand across the horse; let him be put on the trot again, and observe that he bends his knee well, and straightens it again, that he puts his feet forward with courage, and carries his forehand well up; and it may be depended on that such a horse will never come down with him, nor deceive him. Let it also be observed, that the horse gathers himself well up both in the trot and gallop, for unless he does this he can never stretch himself out again, but will go loosely and slovenly in all his paces. The action of a horse is like an elastic hoop of steel, it cannot expand without being first contracted. After these

observations have been made, the purchaser should mount the horse himself, to ascertain if he goes light in hand, and has a fine mouth; and if a trial be allowed, which is usually the case, let him ride five or ten miles out and back again, and then he will be able to judge if the horse answers his expectations.

It will not be sufficient that a horse bends his knees freely and well; he must also bend the fetlock joints with facility. If the pasterns are short, stiff, and too upright, the horse will bend the fetlock joints with great difficulty, will fail getting his toe clear of the ground, and will consequently trip. The action of the fore hand consists in the bending with ease and straightening again the fetlock and pastern joints, the knees, the joints at the elbows, the joints near the chest, and the depression and elevation of the shoulder blade. When these act properly, the horse carries his forehand well, and moves with ease to himself as well as to his rider; but of all the above motions that of the knee is by far the most visible. Hard work stiffens the whole of a horse's joints, but more especially his fetlock and pastern joints, which sometimes become so stiff

that they are said to be ossified, the joints becoming nearly useless, and turning, as it were, into an intire bone. It is therefore dangerous to ride a horse of this description, as he will trip, and come down; the safest way is, to put him on the canter or gallop, as in this pace he will go clear of the ground.

Horses that bend their pastern joints well, shew their shoes a good deal by turning them completely up, which is always a good sign. There are many horses in-kneed; and though this is not a very material fault, nor a reason for rejecting them, still it is not desirable; the knee joints are not fairly set together; and in standing in the front of such a horse, it will be observed the knees incline towards each other. The motion of such knees is particularly observable on the trot. A horse that is fairly set up, bends the leg from the knee so as that the toes would describe two lines passing forwards and backwards, parallel to each other; and in standing behind him, his knees cannot be seen: but the horse that is in-kneed describes two lines with his toes that would cross each other under his belly, as he lifts his feet inwards and bends his knees outwards;

and by standing behind him when on the trot, it will be perceived that his knees have a twisting motion outwards, and the feet describe the two cross lines alluded to. The worst thing attending such a form is, that if the horse be out of condition, and weak, and if he do not stand tolerably wide in the bosom, he will cut himself before at the fetlocks with his heels; and should his feet take his legs higher, he will run a great risk of coming down.

CHAP. XXVII.

ON THE CANTER AND GALLOP.

IN the walk and trot, a horse moves his four feet regularly and alternately, two at a time, supporting himself crosswise; but his action in the gallop is different. When a horse strikes into the canter or gallop, he leads with whichever of his fore legs the rider puts him off. If he lead with the off fore leg, it becomes considerably advanced before the near one, and the near hind leg and the off fore leg are at a greater distance from each other diagonally than the two legs that have not led; so, on the contrary, if the horse lead with the near fore leg, the same takes place with respect to it and the off hind leg, they being in their turn at the greatest distance. The fore leg which leads, and the hind leg which follows it transversely, have the least weight to support. The two others, being more immediately

under the horse's body, have to bear the greatest part of his weight. From this it follows, that if a horse be taught to lead with the same fore leg and hind leg, the two others, that support the principal weight of his body, will fail sooner than the leading leg; it is therefore better to accustom a horse to lead with one fore leg as well as the other. All the different degrees of speed in galloping are only a series of leaps, taken quicker or slower as the horse becomes more or less accelerated in his motion.

Ladies' horses are generally broke to the canter, and most certainly this pace is the easiest as well as the safest for a lady. A lady should never ride a trotting horse, unless he performs that pace in a grand and superior stile, and goes safe and well above the ground; beside, it is a pace that shakes too much, and it is too violent for a delicate frame. No lady above a certain weight should ever take this exercise; for nothing has a more awkward appearance than a large and overgrown woman on horseback, and in so perilous a situation. If a lady weighs twelve or thirteen stone, she actually rides heavier than a man of sixteen,

which must be a great oppression to the back of any common sized horse. To ladies, however, that are fond of this elegant exercise, and are of a moderate weight, the cantering horse is to be recommended, as they ride with more ease and safety than on a trotting one. A cantering horse also is best for a man of a delicate habit of body, as he is more easy, and is not so violently agitated as on a trotting horse. In going into the canter or gallop riders almost always set their horses off with the right or off foot foremost, but this ought not to be the case, as they will soon wear out two of the horse's legs, and in these he would become lame.

In cantering, the position of the rider ought to be quite upright, and as nearly in the centre of motion as possible; but in galloping, the body must incline forward more or less in proportion to the velocity with which the horse moves, holding a rein in each hand (if the horse be on full speed) pressing the balls of the feet firmly on the stirrups, feeling the horse closely with the knees, and preserving nearly an erect posture as high as the middle. The stirrups must be sufficiently short to give

the animal room for his play and motions. You must not bear too hard on the bit, but let the horse have his head freely, if it be wished to keep him on his full speed: but if it is intended to save him for a push at the end of a heat, it will be necessary to keep him in by main force, particularly if he be fiery and mettlesome. It may be observed, that in racing, the horse which goes off last at starting often comes in first, as a judicious jockey will lead off coolly, keeping near his antagonist, and preserving his horse's speed for exertion the last half or quarter of a mile. This is esteemed the best judgment and jockeyship in a long course, for if the rider permits his horse to go off too freely he will not be able to keep his wind the length of the course: but for a short distance, near the winning post, he may push him as hard as he pleases.

Galloping is a pace little used, except in racing, which is the quickest gallop, and in hunting, which does not shake the horse, on account of its being on the turf; but scarcely ever on the road, as it would shake the horse's shoulders, and greatly injure him. Cantering, however, is a common pace on the highway,

particularly for ladies. Arabian horses canter in a pretty style, and can, for a short distance, take the start of English racers, but are not equal, in continued exertion, to our blood-horses. They are more inclined to be fat and heavy; and this rotundity is a drawback on their speed and wind. The wideness or openness of a horse's chest causes him to appear more showy in the canter and gallop, but for speed it must not be too much so. Entire horses are always wider in the chest and heavier in the neck and shoulder than geldings; but that arises from the circumstance of their being stallions; and notwithstanding this heavy appearance of their forehand, it does not seem to be any prejudice to their velocity: though such a forehand in a gelding indicates that he has not much speed; but the superior strength of the stallion is capable of bearing the additional load of flesh and weight of chest.

Of all the paces of a horse, the fast gallop or racing speed, is the most severe on the animal, and, very properly, is seldom practised. In every other pace, some part of the body or limbs is at rest while the others are in action,

but in the gallop, it is an exertion of the whole body without intermission or rest to any one member. From the nature of their shape, thin, middle-sized horses must eventually be the quickest gallopers; and length, with sinew, bone, and action, must succeed against horses of a smaller size, and shorter and rounder figure.

A hare takes her springs quicker than a greyhound, but a greyhound must eventually overtake her on account of his greater length, though his stretches are not taken so quick.

It is necessary that hunters should be able to gallop at a certain speed, as well as to leap; and racers must far exceed them in velocity: but the trot, canter, and slow gallop are the best paces for cavalry and saddle horses; the trot, however, is the best and most useful pace for them, and it is that in which they can continue longest in action, without detriment to themselves. Speed therefore is not so necessary for this last description of horses as strength and action, together with the other paces enumerated.

A horse is said to gallop united when, with whichever of the fore legs he leads, the hind

leg on the same side follows; but if it do not follow, and the hind leg on the opposite side attempts to succeed, then the horse is said to gallop cross, or disunited. For instance, when a horse becomes disunited on the off side, the rider, to unite him again, or make him gallop fair, must bear him a little on the hand, and press his near side with his leg, or touch him with the spur; this will cause him to bring up the off quarter and unite himself. A horse very rarely becomes disunited except through the awkwardness of the rider, from his jarring the horse by bad management of the reins, or a false pressure of the legs and a wrong use of the spurs.

In moving forward towards the right, a horse should always lead with the off fore foot; and in moving forward to the left with the near fore foot. In galloping on circles, a horse must always be made to lead with the leg in the turn; or, to speak more plainly, with the leg next the centre of the circle in which he moves; for if he led with the outside leg, he would cross it with the inside one, trip himself, and come down. Even a young horse when breaking, knows this, and will always

lead with the proper foot. The two inside legs must always lead, and mark the way on a circle, whether small or great. If the circle be small, as in a riding house, the danger to the horse will be the greater; but for his own safety the horse will always do right, unless confused by the person who leads or rides him.

There are seven different modifications of the gallop, called airs, or artificial motions, the gallop being the natural one, and the foundation of them all. The natural pace of the gallop, as well as the seven artificial ones, are nothing more than a series of leaps, shorter or longer, higher or lower, as the horse is compelled to exert himself. The seven artificial motions are called, the terra a terra, the demi-volte, the cervet or curvet, the capriole, the croupade, the ballotate, and the stop and leap. The terra a terra is a short and constrained gallop, by throwing the horse on his haunches, bringing his croupe well in, and obliging him to perform a continued series of short leaps, putting to the ground both his fore feet together, and his hind in the same manner, and marking two times, and not four as in the natural gallop. The demi-air, or demi-volte,

is when the horse's fore legs and forehand are raised higher than in the terra a terra, and his motion slower, as he is kept longer on his haunches, with his fore parts poised in the air. The corvet is an air in which the horse's legs and forehand are raised still higher than in the two preceding, it being a sort of high leap, as when a horse takes a gate, and, when the fore legs are at their intended height and beginning to fall, he raises his hind legs equally high; so that in this motion all his four legs are in the air at once, the two fore feet coming down first together, and the hind feet after, marking only two times. The capriole is when a horse is at his full height in making his leap: he with a sudden exertion strikes out his hind legs together; the shoes meet when the legs are at their full extent, and make a noise by thus forcibly coming together. The croupade is when a horse trusses his hind legs up to his belly, as in taking a high standing leap. This he naturally does to clear the object he has to pass. The balotade is a leap in which a horse attempts to strike out with his hind legs, but does not; only shewing the shoes of his hind feet. This he does when he finds

a leap he intended to take much less than he expected. The capriole is accounted the handsomest leap, as the horse, when at his full height, seems to dart forward as if he fled through the air. The step and leap consists of three airs. The step or pace in order to make the leap, is the terra a terra; the rising of the fore legs and forehand is a corvet; and the air ends with the leap.

These artificial airs give a horse great command of himself, particularly in hunting, but it is not worth the pains to teach them unless the animal be a very capital one. The terra a terra, or constrained gallop, in which a horse's forehand is raised well, and he is thrown on his haunches, is the handsomest, and most necessary for every cavalry horse to be taught.

CHAP. XXVIII.

ON AMBLING, AND THE SHUFFLING OR RUNNING TROT.

AMBLING is a pace which may be sometimes natural, but is more frequently the effect of art. In ambling, a horse moves two feet on the same side at the same time, or at least moves them nearer at the same time than in the walk. When a horse ambles naturally he does it best, and it is a pace which is very easy to the rider; but the artificial amble is not so pleasant, and all his other paces are much injured by it. Galloways and ponies amble more frequently than larger horses, in consequence of the manner in which they are fastened on commons or mountains to prevent their breaking into corn fields or meadows, or from running away. They are usually tied two legs on a side with a rope or fetters, which obliges them to move both their feet at the same time. If they are thus fastened when

young, ambling becomes almost natural to them.

There are various modes of teaching horses to amble, but the best is with trammels, tying two legs on a side, and drawing them as close together as possible without endangering their falling; for if the side ropes were too long, the animal would attempt his natural paces. The place to fix the ropes is above the fetlock, behind and before, and from the middle of them a band is to go over the back, to keep the ropes from falling too low; but this will be unnecessary if his legs be drawn rather tight, as they will thus always keep the side ropes on the stretch. A horse generally ambles at the rate of five, six, or seven miles an hour.

There is another uncommon pace, much like ambling, but considerably quicker, which is called the shuffling or running trot. It is a pace not to be produced by art, and is in general very speedy.

CHAP. XXIX.

ON LAMENESS.

IN all cases of lameness it may be perceived by the motion of the horse's head, which he stoops more or less, in proportion as he is more slightly or deeply affected. In the walk or on the trot, lameness is most perceptible. In the gallop it is not so easily observed, because the horse forgets the pain while in the violence of action. When a horse is lame, the motion of the head keeps pace with the lame foot, which he lifts suddenly, in order to throw the weight of the head on the sound foot and the quarter of the body which is best able to bear it. A lame horse always rests as long as possible on the sound foot, remaining a considerable time longer on it than on the lame one. When a lame horse is standing, he always eases the lame foot by standing on the other three, letting the toe only of the lame

foot rest on the ground; and when he is put into action he always begins his motion with the lame foot, in order that he may rest as long as possible on the sound one opposite to it.

CHAP. XXX.

ON THE MOTION OF THE CROUPE AND HIND QUARTERS.

AS the action of every horse's forehand depends on the proper formation of his joints, and the facility with which he bends them, so the action of the quarters depends on the formation of the hind quarters, and his command of the joints behind, corresponding in number with those before. For a horse to move well behind, as a cavalry or saddle horse, and to be properly suited to those purposes, he must not be too high. Should a horse be so formed, he will move with difficulty to himself and unpleasantly to his rider, and throw the weight too much forward; he will have what is called a rocking or swinging croupe; and this proceeds from the following causes:— As soon as a horse prepares himself for action, which always commences with the fore parts,

he must bend his joints, or contract them upwards before he can put his foot forward. It is the same with the hind legs. When a horse stands high behind, it is in consequence of his hind legs being disproportioned in length to the fore legs; therefore, before he can pass the hind foot forward, he is obliged to bend or contract the joints upwards, in order that it may clear the ground; and as the hind parts are dispropertionably high, the motion caused by bending each leg will be the greater, which occasions the horse to tilt up each quarter alternately, and the rider along with it; and this is the sole cause of his swinging or rocking his croupe. Such horses, when they become tired or out of condition, exhibit this motion in a much greater degree than at any other period; and they also wear the hind foot hoof and shoe a great deal at the toe, as it takes the ground at every motion, and drags against it.

Those who will take the trouble to observe a horse whose forehand is well up, and that stands a little lower behind than before, will perceive how little the croupe rocks; and in riding such a horse will find how much more pleasantly he will carry in comparison to the

other. It is supposed, however, that the hind quarters of running horses being high is no detriment, but quite the reverse, if the course be on a flat, or up hill, because such formation of his body gives the horse a power of acting as it were down an inclined plane on the flat, and on a seeming level up any ascent. The hind legs of hares are nearly twice as long as their fore ones. When they walk, they throw their rumps very high, and when closely pursued will always take a rising ground, well aware that the length of their hind quarters gives them a decided superiority in the ascent. Horses for either the cavalry or the saddle are not intended for swiftness, and require a certain form and action peculiar to those purposes; they must be firm and compact, strong in the quarters, and well up in the forehand. Horses whose hind quarters are higher than the forehand, have looser flanks, and are not ribbed up so close as those that have their forehand well up; but for the reasons above assigned they usually gallop fast, and when they stretch themselves, have more room to bring in their haunches. Though Arabian and most of the foreign horses stand with their fore legs much

under them, they seldom come down, because the forehand being well up, the weight is thrown from their shoulders to their back; but if a horse that is low before stood so, he would inevitably come down. Since, therefore, men neither go into battle to run races, nor ride with velocity for pleasure, their horses should possess a due proportion of action and bodily power.

CHAP. XXXI.

ON THE DIFFERENCE BETWEEN STALLIONS, MARES, AND GELDINGS, IN POINT OF SERVICE.

IT has been frequently disputed whether gelding of horses be an advantage or disadvantage, and whether their strength and action be not impaired by this operation. It may be urged in favour of stallions, that as nature does nothing in vain, and as she in her regular operations created them entire, they ought to remain so; but this argument cannot be well maintained; for as those animals seem to have been created by the Deity for the use of man, and man being a rational creature, he ought to use his reason in converting them to the uses best adapted to his interest and convenience. The same argument may be urged in favour of

heep, swine, black cattle, &c. &c. but as it is found from experience that depriving them of the parts alluded to enhances their value, and makes them more suitable to our purposes, we have a right to exercise our authority over them in thus changing their nature. A stallion is certainly not so serviceable as a gelding, his passions prey on him, he is more vicious, and is sooner broken down, and on account of the violence of his nature he is more difficult to be kept in condition. In France, where horses have not half the spirit of ours, I have seen eight stallions in one diligence. When they became heated, they kicked and bit each other the whole way, and were so viciously stubborn that the driver could not force them to move in any pace but what they chose. Upon asking the driver why they did not geld them, he replied, that it would deprive them of their spirit, but that it would be better to do so, if it would deprive them of their bad spirit and vicious habits.

The people on the continent of Europe and Asia are partial to entire horses, with long tails, which are suffered to grow as well for ornament as to defend themselves against flies,

gnats, &c. but it must be acknowledged, that the constant switching of a horse's tail is very unpleasant, and it is the principal reason why they are not suffered to grow in this country, where perhaps there is less occasion for them; but independently of this, it is as necessary to study our own convenience as that of the horse. Some stallions may be good-natured, but the majority of them are vicious and savage, and instances have occurred of their destroying those who have had them under their management. It appears, therefore, upon the whole, that gelding of horses renders them less vicious, and more useful and tractable.

As to mares, they are not so much esteemed for the saddle as geldings, and dealers always give a much higher price for a gelding than for a mare of the same size and figure. One strong reason for setting less value on mares is, that in the spring and autumn, for natural reasons, they become weak and enervated.

CHAP. XXXII.

ON HORSES PROPER FOR LIGHT HARNESS.

THOSE of the cavalry and saddle size are the fittest horses for the purpose of light harness; and as extraordinary speed is not requisite, the rate of from seven to ten miles an hour is sufficient either for single or double harness; and no horse that can perform thus much should be objected to on account of being low before and heavy in the chest. Indeed a horse that is intended for harness, on account of having the whole, or at least the greater part of the weight of his work depending on the pull, is the better for a strong shoulder and an open chest; and as the weight is thrown off his shoulders, there will be no fear of his coming down; thus we often find that horses unfit for one sort of work are best

adapted for another; it therefore becomes the business of those who buy horses to take care that they are so formed as to answer the purpose for which they intend them.

CHAP. XXXIII.

ON EXTERNAL BLEMISHES.

IN choosing horses, great care must be taken that they have no external blemishes. If they be clean, well made, and free from them, the chance is greatly in favour of the purchaser that they are sound all over, and healthy in their constitutions. The eyes should be sound, full, and healthy in appearance, and the skin of a silky softness; for if the hair be rough, and inclined to stand upright, it is a sign that the animal is unhealthy, and that he has the worms or some other internal complaint. The fore legs should be clean, firm, bony, and free from splints or ringbones about the pasterns; the hind legs should be also clean, and well made, and free from grease, lumps, or swellings, which indicate the

spavin if they are seen any where about the houghs. It should be particularly observed that the skin on the knees is very soft, that there are no knots or indurations on the cap of the knee, and that the hair does not stand rough, for these are certain signs of his having been down.

Those who purchase horses should observe that the knees are flat upon the joint, and that they feel soft. On passing the fingers close down the joints, the animal should stand with his feet forward and his knees quite straight, so that in looking across the knees they do not appear projecting and crippled, which is either a natural defect in the formation of the knees, or the consequence of having been down, which contracts the skin, and causes a stiffness in straightening them. It is easy to tell when a horse has been badly, or even slightly cut, by feeling the knees, as knots and indurations always remain, and the hair stands very stiff, hard, and rough on those parts; and when the skin is once cut through, nothing can completely cure or conceal the blemish; the hair often becomes white, which is easily perceived in all colours, except grey. If a grey horse

comes down, though not badly, it is not noticeable by indifferent observers, but good judges always know by the feel. If a horse's legs be dark coloured, and he has not been badly cut, and only a few white hairs appear, horse-dealers have a black ointment with which they colour the spot for the moment, and by these means frequently deceive those who are not aware of the practice.

CHAP. XXXIV.

ON THE WIND.

EIGHT years of age is about the time which a horse's wind begins to be affected, but horses may become thick-winded before that time, particularly if they incline to corpulence; for the intestines and the inside of the horse being fat, there is not space enough for them, which causes them to press strongly forward upon the midriff, and force it into the space allotted for the lungs. The horse thus affected takes in his wind very well, but it is discharged again too quickly, for the reasons now mentioned. Such horses ought to be fed on diet which is rather nourishing than fattening, and to be kept in a middling condition, and not to be put to work immediately after feeding.

Next to thick wind succeeds pursiness, which arises from colds, surfeits, unwholesome food, bad air, &c. which cause internal

inflammations, and ulcers on the lungs, which so affect them as to destroy, in some measure, their elastic power and disposition to their natural action. In all cases where the wind is affected, immoderate feeding must be avoided; for if the guts and stomach be too full, they will press against the midriff and lungs, and make the horse much worse. The third and last case is the downright broken wind, which follows pursiness, and is produced from nearly the same causes, but in a more excessive degree. The most desperate case is caused by ignorant people giving a horse too hard exercise with a full belly, and particularly by putting him on his speed in the gallop. This overstrains the lungs, destroys their elasticity, and renders them ever after incapable of performing their natural functions. In every stage of broken wind, from the slightest symptom of thick wind to the last and worst stage of broken wind, moderate feeding is best, and such food as will pass easily off, and not occasion costiveness. All animals, when young, have their wind better than old ones; because their intestines and inside are not so large and fat, and after victuals, respiration is more difficult.

Horses that are thick winded are usually called snorers, wheezers, or blowers. Snoring arises from the nostrils being too narrow, and in respiration, from contraction of the passage the air is forced through them very strongly. Wheezing arises from the lungs being affected with an asthma, cold, cough, or some such internal cause. Blowing is, of the three, the nearest in affinity to broken wind, and arises from the breath being forced out very suddenly. In all cases where the wind is affected the horse takes his breath in tolerably well; but from the lungs having been overstrained, and having lost their retentive and elastic power, the air escapes suddenly with a jerk, which is very perceptible at the flanks by their sudden falling. The fatter a horse is, the fuller, of course, will be his inside, and there will be the less room for air; and fatness always increases the complaint. All animals pant very quick, and breathe with more difficulty when thrown into a heat by running, or any other severe exercise; the cause of which is, that the heat thus excited swells every thing inside the animal, and leaves little space for breath. Broken winded and thick winded horses are not very

numerous, and they will do very well for those exercises in which they are not hurried. But it is vain to attempt to cure them, for when the lungs are once affected in this way, it will be next to impossible to restore them. The best way to ascertain whether a horse has any complaint in his lungs is, to take a firm hold of his windpipe, and stop his breath for a short time; if his lungs be affected badly he will throw off corrupt matter; if not, what comes from his nostrils will be rather clear and pure. In buying a horse, he should be mounted, and put on his speed for two or three hundred yards, and his manner of breathing observed; if his wind be thick, touched, or broken, it will soon appear by the irregularity of respiration, and the heaving of his flanks.

CHAP. XXXV.

ON HOGGING.

THIS mode of cutting or trimming the mane is so called from the resemblance it bears to the bristles of a hog when erect on his back. When a horse's mane stands up rough and unnatural, and will not lie on either side, it is best to hog it: but that a hog mane might have a good appearance, the neck must be well formed, that is, it must curve regularly and naturally towards the ears, and have a fine crest. Unless the ears are light and handsome it would be better to have them cropped close and round when his mane is hogged. This mode of trimming the mane does not become every horse, especially those which are large or long backed, nor what are called goat-necked, ewe-necked, deer-necked, or camel-necked

horses, as before observed. The operation is best suited for ponies, galloways, and small horses, but they ought to be compact and well made. Hogging keeps horses cool in the spring and summer seasons, and prevents their sweating, as nothing tends to heat a horse more than a mane loaded with too much hair. Horses thus trimmed ought to have the hair cut very close and short the first time. This causes it to point directly upwards, which it would not do if left too long at first cutting, as the points would bend downwards. To make it look well, it must be cut so as to form a regular curve, the same as the neck, and at the ends of the hair the mane must be cut away quite fine, until the top of the mane, from the withers to the ears, exhibits only a single row of hair; this gives it a light appearance. If the horse be heavy necked, the hair must be cut the shorter, in order to produce the effect of lightening it, and giving it a handsome appearance; but if he be thin and light necked, the mane must be left higher, to produce the contrary effect. Hogging not only keeps a horse cool, but he looks neat, if he be such as above described; yet it must be con-

fessed, that it gives him an unnatural appearance. Nothing looks better than the natural mane, and if it be too thick, it may be lightened by having some of the hairs pulled out.

CHAP. XXXVI.

ON THE SHAPES OF STALLIONS, MARES, AND GELDINGS.

ALL male animals are more robust in their form than the female. Stallions, bulls, rams, boars, &c. exhibit a more muscular figure than if submitted to castration. The juices in those animals being stronger, tend to swell their muscles, and give them the masculine appearance which is peculiar to them. In countries where the inhabitants do not castrate their male sheep, bulls, swine, buffaloes, &c. the flesh is intolerably rank, and unsavoury to the taste.

Horses, after undergoing this process, become lighter, and finer in their shapes, and are not so much loaded with flesh and large muscles about the forehand and chest, but have more the figure and shape of the female; and

it even affects their temper and their voices. A gelding that is vicious and unruly would have been unmanageable if he had remained entire. A gelding may be known from a stallion by his neighing; but it is difficult to distinguish him from a mare by his voice; and it is well known that this operation produces a similar effect in every description of animals.

The eye would be gratified at seeing a body of dragoons mounted on entire horses, but their passions and viciousness render them unfit for the purpose.

Colts must not be gelded too young, or they will become effeminate; nor too old, or they will be vicious in their temper.

It is an unquestionable truth that stallions are infinitely handsomer, and are more compact in all their shapes than geldings or mares, and their long flowing tails and waving manes produce a grander effect on the mind of the observer than other horses; but when a number of them are together, in the army for instance, and particularly if they have already covered, or if mares are in company, they are in a continual state of irritation, biting and kicking each other, and are more intent on

looking for the female than in obeying their riders. Maiden stallions are quite different in their tempers to those that have once had mares; they are gentle and tractable, and may be used together in harness as quietly as geldings; but immediately after they have been used to cover, they become more savage to each other, and very restless if kept in high condition. No irrational animal on the face of the earth exhibits so beautiful and grand an appearance as a well-formed, middle-sized, blood stallion, compact and complete in all his members, and left as the hand of nature finished him. Every touch of art tends to spoil the perfection of his figure, with the exception of shoeing, which is only to preserve what nature formed so well; and if such a horse be well broken, and mounted by a good rider, the toute ensemble exhibits the finest production that nature has shewn in her variety of animate beings. In the dragoon service, however, nature must, in this, as well as in other respects, yield to art.

CHAP. XXXVII.

ON RESTIVE HORSES, AND THE METHOD OF CORRECTING THEM.

Some horses are of so vicious a temper that they will frequently do only what they please, go at what pace they choose, and whichever way they take into their heads. Horses of this description generally object to going from home, and indeed most of them return toward their stables with more alacrity than they set out; which is very natural in irrational creatures, whose chief pleasure is eating and drinking. A horse will frequently stop at those places to which he has been accustomed; neither force or severity will induce him to pass particular objects. Sometimes he will go backwards instead of forwards; and good horses are often spoiled from being rode by boys and timid riders, of which the horse is soon sensible, and will avail himself of the advantage of

superior strength, and endeavour to disencumber himself by rearing, kicking up, and plunging. Such horses should be mounted by good and resolute riders, and the whip and spurs applied vigorously to his sides, which operations will, when used together, strike him with terror; and most probably, if he be not vicious in an extraordinary degree, will effectually check his obstinacy. Whipping him behind will also be of considerable service in sending him forward; but if neither gentle means nor force will effect a remedy, recourse must be had to art. Take a handful of very dry straw, put it under his tail, and set fire to it; and as soon as he feels the heat, he will go forward with alacrity; or it may be done by laying a small bar of heated iron across his posteriors. Either of these methods will effectually break him of restiveness.

Beside being vicious, obstinate, and restive, a horse may also be timid, and shy of various objects, such as heaps of dirt on the road side, carriages, waggons, and dead animals; and the noise of drums, firing of cannon, &c. may frighten him if young and unaccustomed to them. If a horse shuns such objects, no no-

tice should be taken of his starting a little, as it is a good sign, unless he is seriously frightened; on such occasions it is best to let the reins be loose and long, but at the same time the rider should be on his guard without seeming to be so, and when the animal finds that his caution is groundless, it is most probable that he will pass the object of his alarm quietly. When a horse begins to start, and feels his rider gather up the reins hastily, he then apprehends there is actually reason for alarm, as he concludes that the rider, from putting himself into a posture of safety, is frightened also; but by suffering the reins to be loose, it will shew him that all fears are groundless; but if he proceeds to his obstinacy, it is necessary to apply correction, and to ride him boldly up to the object at which he takes fright, for if he once gets the better of the rider in this respect, he will never be entirely manageable.

Some horses will naturally stand fire, the noise of drums, &c. but these are few. The best way to make them stand at such noises is to fire pistols at the stable door before and at the time you give him his oats, or let a drum be beaten at the same time, and whenever he

hears these or similar sounds, he will naturally conclude that he is about to be fed, and will hear them rather with pleasure than alarm.

If you wish your horse to be accustomed to military exercise, and to break him to the use of pistols, carabine, and sabre, (this also will be sufficient to break him for shooting,) you must let him see those instruments whilst he is eating his oats. You may first begin by cocking the pistols, and snapping them without priming, then proceed to flash in the pan with a little powder, and afterwards fire a small charge, and so on. These things are to be done first in the stable near the horse, but afterwards across his back; you must at the same time humour him, in order to convince him that it is done in good nature. Then hang the pistols, &c. up in the stable, in such a situation that the horse may always have his eye upon them. With respect to the sabre exercise, you must act differently. First draw and return the sword frequently in the stable while he feeds; lean on his back with the right arm, holding the sabre in the same hand, and continue moving it gently till the horse becomes accustomed to it; afterwards pass it

quicker round his head and about his eyes. When you mount, begin moderately in the same way; for a horse is very tender and thin in the bones of the head and skull, and instinct teaches him to guard it with great caution. Every animal is well acquainted in what parts he is most vulnerable, and consequently protects them with much care. If, after a horse is mounted, he is still shy of the brightness of the sword, a stick or cane should be used for a time in making the different cuts, and care must be taken to cut clean and wide of him; for if a horse be once struck through awkwardness, it will be difficult to make him forget it.

A man should never, if he can avoid it, be out of temper with his horse; but such is the depravity and brutality of some of the human species, that they are shockingly cruel to these useful animals, and beat them unmercifully. Nothing is more cowardly than this, as the poor creatures can neither complain, nor are they permitted to resist. Beating a horse for little or no cause will break his spirit and spoil him. A horse is particularly afraid of being beaten about the head, because the bones of the

head are in many parts extremely thin and tender, and a trifling blow will fracture it. Gentle means will subdue almost every horse, unless he be uncommonly vicious; but if he will not submit without beating, he ought to be flogged about the body, but should never be struck on the head.

Horses are very timid by night; for we may naturally suppose that if they are liable to take fright by day, as they do, their fears must be increased at night, when, from the imperfect view they have of every object, their imagination represents them as so many objects of terror. Horses very frequently sweat profusely under the rider at night, merely from fear, when they have perceived any thing that gave them uncommon alarm.

When a horse travels in company with others, he goes much better, does not so soon become tired, nor is he apt to take fright so readily; and this is the case with all animals; they are less timid, and by no means so liable to alarm when a number of them is together. Courage is observable in a greater or less degree in the race of horses as well as among men. The more blood a horse shews,

the greater is his courage, and he is less liable to take fright: stallions are less fearful than either mares or geldings.

When a horse becomes restive, the conduct of the rider should be very different from that which is generally adopted; for it must be evident to those who are accustomed to the tempers of horses, that gentle treatment will generally have a better effect than either harshness or coercion; and it were to be wished, though the most provoking stubbornness is sometimes exhibited by these animals, that gentle remedies were always applied; for though contrary means may be resorted to, under the influence of anger, the result is too often attended with serious injury to the horse, and disappointment to his rider.

High spirited horses, and those that have a good deal of blood, will very rarely take fright, or be restive or unruly, after they are once properly broke in. It is those of a sluggish and stupid nature that are most vicious and vindictive against the rider, and they are scarcely worth the trouble of breaking for the saddle. Almost all horses are afraid of taking the water, they must therefore be led to a place

where there is a fine hard bottom, deepening gradually; for if the horse feels the bottom soft or muddy, it will be found almost impossible to prevail upon him to proceed.

If your horse can swim, and you wish to cross a river, take it slanting, or with the current; for if the distance be considerable, he will become tired by labouring too much if you keep his head against the stream, and you will be in danger of drowning. A horse will never be restive or stubborn in the water, as he dreads too much his situation; you must therefore let him have his head, and guide him gently, and as was before observed, obliquely with the current. Good-tempered horses are easily cured of restiveness, but those that are naturally vicious will retain something of it during their lives.

CHAP. XXXVIII.

ON SHOEING.

NATURE, in forming the foot of the horse, covered it with a hard hoof, and from this it should seem that it never was intended that iron shoes should be affixed to them with nails of the same metal; but art in most cases introduces improvements, and puts a finishing hand to the operations of nature. Had not highways and pavements been invented by art, for the convenience and use of mankind, horse-shoes would never have been necessary; but as one necessity begets another, so one improvement introduces another. The hoof of a horse is formed sufficiently hard for the turf, and for agricultural purposes in a moderate way, but not enough so for drawing large loads, and supporting heavy burthens and riders on hard pavements and rough gravelly highways. To make horses, therefore, equal to

this task, shoeing them was thought the most efficient plan, and was adopted to enable them to perform their different labours, and to support their bodies and loads with more facility. Shoeing, therefore, having become absolutely necessary, it is incumbent on man, for whom these useful animals toil, as well as administer to his pleasures, requiring nothing in return but sustenance, to exert every effort of his genius to afford them the greatest ease and comfort, not only in this, but in every other requisite for the performance of their work. In preparing the foot for the shoe, as little as possible of the horny substance should be pared away; indeed nothing more should be removed than the inequalities which prevent the shoe from sitting fair and even; and any sand which may have penetrated the hoof ought to be carefully picked out; for if it be suffered to remain, by the pressure of the foot against the shoe it would work deeper in. The frog and bars ought not to be cut down to the quick by ignorant farriers, which they call opening their heels; a practice too generally adopted. Paring away the heels, the bar, and the frog is the operation that puts a

finishing stroke to the destruction of the foot. It causes the heels totally to close, and the horse soon becomes lame. The bars being placed there by nature, and strongly connected with the heels at their widest extremes, seem to be purposely places to press outward the crust or horny substance at the extremities of the quarters when the hoof becomes dry, and has a propensity to shrivel and contract. The bars exhibit a mathematical angle, the two sides of which form a junction near the centre of the foot, and widen regularly outward until they join the crust at the heels. These are not equally streng in all horses; the weaker they are, with more caution ought they to be guarded, and not injured by paring away; for when the crust becomes strongest, it overcomes their elastic power, and the extremities of the quarters encroach gradually until the heels are quite closed, and the horse consequently lame. The feet should barely be cleared of the superfluous callosities that adhere to them; for even the smallest shaving that is unnecessarily pared away tends to destroy the elasticity of the horny substance which affords protection to the sensible foot. The feet of horses are as

differently formed as the feet of men. One horse has a long foot, and pointed at the toe; the foot of another is formed like that of a mule; a third has a small hoof, a fourth a large one, and a fifth has a foot perfectly formed in every part. One horse has a fine open heel, another a narrow, close, and contracted heel, a third has too high an heel, and another too low; some horses have soles too low and flat, and rather convex than concave, as they ought to be. The formation of the feet of young horses is more similar than after they have been frequently shod and worked hard. If too great a weight has been laid on their backs when young, they are obliged to exert themselves before their joints are properly fastened, which spoils their shapes, and particularly their feet and hoofs. A pressure on their back at too early an age forces their soles downwards, and gives them a convex appearance, which they retain ever after, or at least makes the soles too flat. Indeed horses that have arrived at a proper age have their feet spoiled by too hard work. These varieties of shape and form, therefore, ought to be observed, and carefully remedied by farriers as

much as possible, in forming the shoes and in shoeing horses. The shoes of the generality of draught horses sit awkwardly, and particularly on the inside of the foot, and the hoofs of such horses are generally flat and ill shaped. This is owing to the great exertion required in drawing their load: the great force with which they place their feet to the ground, and the weight they draw, forces the sensible foot downwards, and flattens the sole; the consequence of which is, the crust of the foot sinks inward after the sensible part, and has a hollow appearance all round. The foot lengthens considerably; and the outward part of the shoe, from the toe round to the heel, receiving most of the pressure, is consequently most worn; the inside of the foot not having much pressure, shrinks upwards, and the shoe is obliged to follow it, which causes the feet of many horses, especially if they have been used long in the draught, to be crooked upwards inside; and this happens more particularly to such as point their toes a little inwards; and their work occasions most of them to do so. It is useless to attempt a change of them; the only remedy is to fit the shoes to the feet.

As the feet of horses, therefore, assume various forms, the shoes must be fitted to the feet, and not the feet pared away to accommodate the shoes. The handsomest foot is that which has a roundish rather than a long form, with an open heel, and plenty of hoof, sufficiently deep from the coronet in front to the point of the toe, and the quarters diminishing gradually in depth until they arrive at the heel, where they terminate, and where the crust is lowest; and the reason of its being lowest at the heel is, that after having bent his knee well, the horse may be able to straighten it again, which he could not do so well if the heel were too high; and shoes turned up too much for cavalry and saddle horses produce this effect. In preparing the foot for the shoe, nothing should be taken away from the sole but what is quite superfluous—the soft, mealy substance that accumulates between the hoof and shoe of a horse that has been already shod, and particularly in white-footed horses (which is not met with in the hoofs of a horse that has run barefoot at grass for some time), and filing off the inequalities and breaks that occur round the circumference of the hoof outside. After this

is done, the shoe ought to be tried and fitted to the foot. If the heels be narrow or close-heeled, the shoe must also be close. In heels that are narrow and round by nature, the shoe must be formed exactly to the foot; but if heels are contracted by disease, the shoe must be made wider, in order to give the heels liberty to expand again to their original form. The shoe should be so formed on the inside as that the principal part of the pressure might fall upon the circumference of the hoof, which is naturally the hardest and strongest. It should fall away from the outward to the inward edge with a gentle descent, so that when the foot is taken up after being shod, there may be a very small space between the sole of the foot and the shoe. There are two objects to be attained by the shoe falling away in this manner; *the first* is, that the shoe may not press too close to the inward part of the sole, which is far more tender as it approaches the centre of the foot; and another no less important reason for the shoe sloping downwards is, that if any gravel happen to accumulate between the sole and the shoe it will not remain there, but by the motion of the foot will slide

out again, which, on account of the descent, it will not fail to do; and when the feet are washed and picked at night, or after a journey, before the horse is put into the stable, any sand or gravel will come out the more easy, on account of this form of the shoe. Round the extreme circumference of the shoe is where the weight ought to lie, and this is demonstrated by taking a horse with a fine foot, that never was shod, and letting him walk on a tough clay path; he will mark his foot clearly and deeply round the outward edge, but the sole will scarcely make any impression, and the bars and frog a very slight one. This plainly shews where the weight naturally lies.

Though a horse's foot be sufficiently strong to carry his own weight, and though the frog and bars mark the soft ground under the foot but slightly, yet no pressure, or at least very little, should fall, or actually does fall, on that part of the sole, and on the rest of the heart of the sole there should be none. When, therefore a horse is shod, and a load or rider put on his back, the shoe ought to be so formed that no part of the sole might touch it except the outward edge of the hoof all round. The toe

of the shoes ought to be of a sufficient thickness, and so contrived inside as to suffer little or no pressure to fall on the bars or frog; because this pressure reaches the sensible sole, and lames the horse.

The outside of the shoe is next to be considered. It ought to be nearly flat, but falling away a little towards the inward edge, as the horse will keep his feet the better for it, having a more firm hold of the ground than when the shoe is too full in the middle; particularly in the winter, when the frost renders it so difficult for any animal to stand that is shod with iron. The shoes of all horses will be the better for being thus formed, as they will keep their feet better. The shoe ought to be grooved for the nails, the groove at each side approaching gradually, and terminating at a small distance from the toe. In frosty weather it would be adviseable for the fore shoes to be grooved round at the toe, and a frost or ice nail adopted, which greatly assists the horse in keeping his feet. The groove has two advantages; in the first place it preserves the heads of the nails from breaking off, and keeps them more firm in their place; and in the next, even

after the heads are worn flat, the groove assists the horse in holding the ground, and consequently in keeping his feet. The only objection to the groove going all round is, that it weakens the shoe, and makes it more liable to bend, but this might be remedied by making it narrower and thicker. In punching the holes for the nails, two punches ought to be used, the one rather thicker, and somewhat blunt at the point. With this the holes are punched nearly through. This part is performed on the solid anvil. The other punch has a finer point, and the shoe with the half punched hole placed over a hole in the anvil, and thus punched entirely through. This last operation forms the hole finer upwards, which consequently fits the nail the better. The head of the punch ought to be inclined inwards to the middle of the shoe, which gives the holes a direction outwards, and will prevent pricking, as it gives the nails a direction outward from the quick part of the foot. In punching the holes of the shoe, the farrier ought particularly to adhere to this method. The fore shoes should not be longer than the foot, because horses that clap or overreach will sometimes

catch these, and tear the shoes off. This frequently happens to those horses that are weak in the pasterns, particularly when they become tired, or travel on a heavy road, where the fore feet suck, and they have not strength or sinew enough to move them out of the way of the hind ones. Indeed the shoes of both hind and fore feet ought to be exactly the length of the feet; for making them longer answers no purpose; the superfluous weight only adds weight to the horse's foot; and be it ever so small, will draw out, or at least loosen the nails both behind and before; those behind, on account of the additional weight; and those before, for the following reason: when the horse puts his hind foot forward, it alights first rather on the heel; the weight of the animal, therefore, on the heel of a shoe that is too long, would strain and loosen the nails at the toe. The turning up of shoes too much at the heel is improper either for cavalry or saddle horses, because it prevents them from straightening their knees, which is as necessary in the motions of a good horse as the bending of them. If cavalry have occasion to move in frosty weather, it becomes absolutely necessary; but the turning

up ought to be very short; and if, instead of being turned up whole, as is usually the case, the extremities were divided like the claws of a hammer, and each claw pointed, it would keep the horses much more secure and steady. The point of each claw ought to be considerably sharpened, which would make them penetrate even into ice; and if one point missed, the animal would be sure to catch upon the other. When the shoe is turned up and not forked (which I believe has never yet been practised) the edge of the turn-up soon becomes smooth, and the horse slides as much as he would do without it. The heel, as well as the toe, on such occasions ought to be made of steel, which renders them more durable. The trouble of making such shoes is rather greater than making plain ones, but it is less expensive to make good shoes than to purchase a good horse; for if he comes down in frosty weather, it is very probable that he will break either his knees, or his bones, or disable himself in some way or other. When General Suwarrow crossed the mountains of Switzerland from Italy, in the depth of winter, he lost most of his cavalry; and no doubt the loss was

increased by the horses not having been properly prepared for the journey.

Every man of common observation must perceive how difficult it is for a horse to keep his feet in winter, particularly on an ascent or descent, when they are plated with iron.

Horses used for the draught of the baggage in an army, or for heavy artillery, ought always to have their shoes turned up a good deal in frosty weather, and forked in the manner before described; but when there is no frost, the common way will answer. It is always of use to assist draught-horses in their pull, and the turn up should be higher to the hind shoes than to those before, as it lowers the shoulder, and gives them a greater purchase. Observe the feet of a draught horse at a dead pull up an ascent, and you will find that he first strains against the weight from his toes, stretching the back sinews of the legs very forcibly, and the heel comes gradually to the ground. If the heel, therefore, has a high turn-up, it meets the ground, and places the foot somewhat on a level; but if there be no turn-up, the heel is greatly lowered, and the horse's weight falls backwards; and instead of gaining

or preserving his ground, he loses both. Thus we find that turning up is of such service to the heels of draught horses, that it should never be omitted. In those seasons of the year when there is no frost, neither cavalry nor saddle-horses, nor those used in light harness, require their shoe heels turned up; because when a horse rests on his hoof he stands entirely flat. Heels being turned up too high prevent a horse from straightening his knees, and throw the weight of the animal, as well as of the man, forward, which will bring him down. Therefore turning up the shoes of saddle and cavalry horses is a business of necessity to prevent a greater evil, and ought only to be done when unavoidable.

Farriers should, as much as possible, avoid excess of drinking during the hours of business, for the attitude of stooping assists the powers of liquor, and consequently promotes intoxication. To this succeeds a degree of carelessness about the animal with which they are entrusted; and serious injuries are frequently the result of their inebriety. When the foot of a horse is pricked in shoeing, though no immediate inconvenience be per-

ceived, the lapse of a day or two will exhibit an irritation in the part, even if the nail be drawn at the instant the wound is given; and the horse expresses his sufferings by kicking violently, and holding up the affected foot; and so great is the ignorance of some men who pretend to a knowledge of farriery, that it has not unfrequently been known that they have applied internal remedies for the consequences of pricking.'

The temporary lameness caused by accidents of this sort is not all; the wound becomes indurated, and will remain there during the horse's life; for the foot and hoof is naturally so hard that there is no possibility for the corrupt matter to make its way completely out; and if a horse frequently meets with this misfortune, it will eventually give him tender and bad feet. In shoeing a horse, the old nail holes ought to be avoided as much as possible, as the nails will not take such firm hold; and it is injurious to the feet to have the shoes fastened in the same place. The nails ought to be rather thin than square, as square nails burst the hoof.

In shoeing cavalry and saddle-horses the

shoes ought not to be made too heavy, for it is astonishing how much a small weight will affect their motions. The shoes must not, however, be made so thin or so light as to admit of bending, lest the sole of the foot should be injured by a bruize. They should be made narrow and thick, rather than broad and thin; for, as was before observed, the pressure of the horse's weight is principally round the circumference of the hoof.

That the hoof may not become too dry and hard, and lose its elasticity, it will be necessary to wet the feet twice or thrice a day by riding the horse into water as high as the knees, which cools and moistens the feet and legs. If he be watered out of a pail, each foot should be taken up and dipped into it for a short time. Water is the most natural moisture for the legs and feet of a healthy horse; the other necessary moisture is afforded from the constitution of the animal. A horse's hoofs, however, are benefitted by being rubbed with an oily sponge before he is rode.

If a horse becomes tender about the frog, or the hinder part of the foot, a bar-shoe is commonly applied, to protect those parts until they

recover their natural strength: in this case, the bar should be at a little distance from the heel, as it is not used for the heel to press upon, but merely to protect it from stones and gravel till it be properly recovered. It may be observed, that many capital horses have very long toes and very low heels; these generally bend their knees well, have good action, seem to feel no inconvenience, and put their feet forward with good courage. To alter such feet would be impossible, without injuring the animal. They must not be pared away at the toe, nor too much shortened, as this attempt to give them handsome feet will bring them too near the quick, and cause the horses soon to become lame, and to founder in the feet; the superfluous parts only are to be removed, and the shoe fitted on the handsomest feet; for it is as impossible to give the feet of horses any other than their natural form, as it is to give a different form to the feet of men; the only thing that can be done to relieve deformity is to endeavour to preserve them as well as possible.

The speedy-cut, which is a very common accident to those horses that are close made

before, and whose feet turn inward, may be in a great measure prevented, by firing away the hoof so much as not to endanger the safety of the foot, and rounding off the shoe considerably at the inmost point of the toe; for in this case the least diminution would make a great difference; and it is remarkable that horses thus formed do not cut much oftener, from their legs approaching so near to each other at every motion.

As the advantage of practice is too evident to require enforcing by argument, when facts can be demonstrated at an easy rate, it is the duty of those who undertake to instruct others, to teach them practically. Farriers should procure the feet of dead horses, fresh cut off, and point out, by operations, to those they employ, the necessity of caution while in the act of shoeing; for such is the susceptibility of the foot, that the slightest wound is often attended with the worst consequences.

To what has been said on the subject of shoeing and horses' feet, a hint might be added to those who keep grooms, to take care, at the conclusion of a ride, that their horses are not wantonly exercised; for it not unfrequently

happens, that instead of being taken to the stable immediately, they are submitted to the recommendation of others, and are often rode or driven about on the causey, to the great injury of the animal, and ignorance to the owner.

Four nails are enough on each side of any middle-sized or small horse's shoe; more would turn the hoof, but large and powerful draught horses, whose shoes are heavy in proportion, and which have heavy work to perform, require five or six on each side. Horses that are used for pleasure ought to be shod lighter than cavalry horses, and the shoes of the latter should be lighter than those of coach horses; but horses for the draught of heavy artillery, carts, or waggons, ought to be shod the strongest and heaviest of all. Removing shoes too often is injurious, as it tears away the foot. One removal is enough for a set of shoes, and when the shoes are taken off, either to be removed or replaced by new ones, the clenches of the nails ought to be carefully undone by cutting them, and not torn off in haste, leaving them either to unfasten themselves, or to make their way through the holes as they are. This is too often the case, but it should never be

suffered, as it is very pernicious to the hoof. The French farriers put shoes on in a different manner to the farriers of this country; they have a place for the horse's foot, in which they fasten it, then standing before the foot, they drive the nails in as if they were driving them into a block. The English farrier takes the horse's foot between his knees, and by this means he has more command over it; he sees the direction of the nail better in driving it, and the horse's foot assists in the entrance of the nails by its re-action; and if the animal happens to be hurt, they perceive it the easier by his suddenly shrinking on the nail approaching too near the quick. It should seem, therefore, that the English method of shoeing is preferable to that of the French.

CHAP. XXXIX.

ON FEEDING AND EXERCISE.

OF all the different diets that have been tried for horses, nothing is better than good old hay, that has been cut properly ripe, and well got in; and old oats; and nothing is more congenial to their nature and constitutions, or contributes more to their health, strength, and vigour; for though other sorts may be used, either from necessity, or by way of medicinal food, yet they never ought to be resorted to but for such purposes. Split beans and peas are also good food, but they are best suited for carriage and hard labouring horses, having a tendency to produce fatness, and thicken the wind, and therefore should be given only in moderate quantities. They are also good for horses in low condition, in order to get them fast into flesh. Bran, occasionally, is good, and may serve instead of physic. When a

horse comes in warm, in cold weather, a small mash of bran, made moderately warm, is a good thing for his stomach. This should be given to him before he has his oats or water, allowing him only as much at first as will cool his mouth, and which cannot hurt him. After he has had this a little while, has eaten a little hay, and become cool by being well rubbed down, a reasonable quantity of water may be given, and afterwards his oats. Watering horses in a pond or river is always preferable to giving them pump or well water, for the following reasons:—Well and pump water is extremely cold and heavy; because, being filtered through a great depth of earth, the heaviest particles will always descend in endeavouring to find their level. This water, drawn up suddenly, strikes a deadly cold on the vitals of the animal; and being unmixed with air, (the reverse being the case with pond or river water,) it greatly affects the constitution of the horse. If no other than pump or well water can conveniently be procured, it ought to be drawn up or pumped into a trough some time before it be used, and the air, by acting on it and mixing with it, will soften it considerably. The

difference betwixt pond or river, and pump or well water, as to its hardness, may be easily known by washing the hands with either of the latter, which will be found to be too hard even with the assistance of soap.

To choose good hay you must examine it not only by its fragrance, but observe also that it be the long jointed or knotty grass. Any hay well got up, without rain, will look and smell well, but the same quantity of the single pointed grass, without joints, will not afford half the nourishment as the jointed, knotty grass above mentioned. The former, if you chew the joints, will taste sweet, is full of agreeable juice, and has grown on a rich and good soil; but the latter will afford no sap or juice, will taste dry and harsh, and must have grown on a poor, ill-managed soil. When a horse is brought in from grass, he wants no physic or purging, or at least very little, as it will be observed that all horses at grass are continually in a relaxed state, if pastured on a good soil, and their urine is of a greenish colour. When horses are taken in from grass they should first be fed on green, well got-up hay, because sudden alterations in their aliments are bad, and

old hay may, if given at first, bind them too soon. When fed on this and on bran mashes for a few days, old hay and oats may be given in proper quantities, and increased by degrees, according to the work that they are intended to perform.

Mangers ought always to be made of wood, and not, as is frequently the case, of plaster or brick; and that part betwixt the manger and the rack, and behind the rack, should be wainscotted, which would prevent sand or dust from falling amongst the oats or hay. Great care should be taken to examine oats, that there be no gravel or small stones among them; and they should be well sifted. The teeth of horses are frequently injured by such neglect; and whenever they receive any hurt of this kind, they afterwards eat their food slowly, and with great timidity. Horses are very different both in their powers and manner of eating: some have strong and others weak jaws; some have good mouths, and others indifferent ones; some masticate slowly, others quickly; one horse will eat a feed of oats in half the time another requires, and yet the dung of

both will be found to contain some oats which pass through in a perfect state.

All persons conversant with horses seem to agree that oats would be better if bruised in a mill. There is no doubt of their affording more nourishment, but they would clog the horse's mouth; and it is a question whether the exercise of grinding his own oats be not beneficial to the animal, by strengthening his teeth, gums, and jaw bones. Stones and gravel are so unpleasant and injurious to a horse that it may be observed when he feels one of these in his mouth, he will drop the whole mouthful at a distance from the rest, suspecting that more remains in the feed. Those who feed horses at picket, or with a bag slipped over the head and on the nose, should carefully examine that there are no stones among the oats, as the animal is deprived of the advantage of discharging it, as in a manger.

Regularity in meals is as essential to the health of a horse as to that of a man. Feeding them at fixed hours preserves the tone of the stomach, and prevents that relaxation which is so injurious to the constitution; and it is a practice which should never be neglected, if emer-

gency do not render it impossible. If a horse be costive, and he will eat them, raw potatoes will purge him. Other vegetables, such as carrots, vetches, green clover, and fresh cut grass, are good purges for a horse, and will keep him cool in the summer months. Horses designed for different kinds of work ought to be exercised accordingly, in order to inure them to what they are to perform. A race-horse must be cantered and galloped slowly at first, and brought on by degrees, until he is put on his full speed. A hunter should be accustomed to gallop cool and steady, and to perform his leaps safe and well; first by using him to moderate ones, and gradually to increase them till they are capable of surmounting those obstacles to which they are liable in hunting. Dragoon horses have a mode of exercise peculiar to themselves. The best time to exercise horses that do no work, is in the morning and evening; because, after long confinement in a warm stable, they require fresh air and exercise to brace their bodies, and to make them digest their food; and after having been well exercised, they will feed and rest better the remainder of the day. If a horse be exercised

without clothes, he should be mounted quickly, and rode off in good pace, to prevent him from catching cold. On returning, his feet and legs should be washed clean, and picked out, which will keep the heels sound, and free from thrushes and other sores.

Air and exercise are essential to the existence of every animal on the face of the earth; and none suffer more deplorably for the want of it than horses. In a state of inactivity, they are as spiritless and unpleasant as they are the reverse when in exercise; besides which, they are liable to the accumulation of numberless disorders, such as colds in the limbs, swellings of the feet and legs, loss of appetite, weaknesses, &c. when submitted to rigid confinement. Those horses, therefore, which are kept for the purposes of pleasure only, (and it may be fairly presumed that those of every other description have as great a share as is necessary,) should have a proper portion of daily exercise and air, if their value be properly appreciated.

In purchasing hay, never choose that which has a musty and disagreeable smell. It is an indication of its having been put up too soon,

that it heated, or that it became wet while it was making.

The best oats are those that are old, provided they were fully ripe, and that they have not heated. The rounder the body, and the thinner the shell the better, as they contain the greater nourishment. Black oats are always bad, for they do not afford so much nourishment, and are masticated with difficulty, the shells or husks being extremely thick.

All animals, after feeding, are inclined to sleep and rest. When aliment is received into the stomach, the digestive powers are so much employed, that every other, even those of the mind, are inclined to repose, in order to give digestion its full scope. This is so well known in those countries that are infested with voracious animals, that the natives always prefer attacking them after they have devoured their prey, being perfectly aware that they will find them in a state of indolence, if not asleep. The horse after feeding yields to this impulse of nature in as great a degree as other animals; and if those who frequent stables will take the trouble to observe, they will find almost all horses slumbering after their meals. From

this observation is to be inferred the necessity of giving a horse at least an hour's rest, if possible, after feeding. This will be no loss of time, as he will perform his work or his journey afterwards with much more ease, alacrity, and spirit. If a horse be taken out of the stable, and mounted immediately after having finished his oats, either for the road or for exercise, he will not digest one half of his food, but will discharge it quite entire. These minutiæ may not be observed by every one, yet they are not the less true. Too great attention cannot be paid to whatever respects a horse's feeding, since his health, strength, and action depend upon it; and it is essential that every person should take care that their horses are fed regularly, and that they are allowed a reasonable time to digest their food.

CHAP. XL.

ON SADDLES, AND SADDLE-CLOTHS.

THE saddle being so necessary for the ease of the rider, as well as for the comfort of the horse, it will be proper to take notice of the different forms which at various times they have assumed; and perhaps there is no article in such general use that has received a greater portion of refinement. Saddles were formerly appendages of the most clumsy and unwieldy nature; and though it be true that they were in some measure adapted to the size of the horses then used for the purposes of pleasure, and for cavalry, they were nevertheless much heavier than occasion demanded. In these later times, however, when smaller horses have been thought adequate to lighter labours, the saddle has also been proportionably diminished, and is

now brought to a perfection which can scarcely admit of further change.

Nothing contributes more to the comfort of those who are in the habit of riding than a saddle properly adapted to the shape of the horse; for, independently of the present pain inflicted by ill-contrived saddles, very serious and lasting injuries are frequently sustained both by the horse and the rider. It is an act of absurdity, as well as cruelty, to put a narrow saddle on the back of a broad horse; and notwithstanding the perfection at which the art of saddle making is arrived, it may not be improper to give the following hints to those who may be unacquainted with what is generally considered the best and most easy shape.

The tree ought to be well fitted, so as only to press on the bare back, near the points of the shoulders, but the upper part should not touch the back; and the tree must not be too wide, otherwise the saddle will slide forwards on the shoulders, especially if the horse has a low forehand and be rode without a crupper. After the tree is properly fitted, the pannels must be carefully stuffed with hair, (which is best, as it does not become matted,) toward the

back, with a swell in the centre, and falling away again gradually toward the lower edge. The front of the pannels near the shoulders should be thicker than the hinder parts, as it prevents the weight from falling forward upon the points of the horse's shoulders, which would greatly cramp his motions by preventing the depression and rising again of the point of the blade bone, which falls and rises every step the animal takes. Some horses are so strong and active as not to regard pressure on those parts; but notwithstanding this, their ease should be consulted as much as possible. Weak horses, and those that go close on the ground, are much relieved by throwing the weight off their shoulders, and giving them free play. The tree of a saddle should be very light, but sufficiently strong to support the weight which it is intended to carry. Cavalry saddles ought to be considerably stronger in the tree than those for pleasure, as the military accoutrements of a dragoon add considerably to his weight; and having rougher service to perform, they require a proportionate degree of strength.

In the upper part the pommel ought not to

be too high, but the saddle should swell regularly from the centre to the pommel. Saddles are frequently too low, and fall away in the direction alluded to, which causes the rider to lean forward too much, and becomes very uneasy to himself as well as to the horse, as it throws the weight on the horse's shoulders. From the centre of the saddle backwards, the ascent should be rolling, and merely sufficient to prevent the rider from losing his seat. On such a saddle he will sit comfortably, and his weight will not bear too much on his horse's forehand, nor alter the position of the saddle. Dragoon saddles have heretofore been made heavier than was necessary to support the weight they were intended to carry; for every person that is conversant with horses must be aware, that in a long march or ride the addition of a few pounds will greatly oppress a horse. In racing, a single pound will make a great difference in determining a contest: if, therefore, so small a weight will affect a horse in one of his paces, it must also affect him in every other. A saddle too high behind is extremely uneasy both for the man and the horse. It throws him forward perpetually, he rides as

if he were going down a hill, and presses with all his weight on the horse's forehand. Saddles too high before and behind have a bad effect, as the hips and thighs of the rider are buried between the fore and hind parts of them. Hungarian saddles are thus made, and are dangerous to the rider, should he be thrown on either extremity, which is so sharp that it must produce, in such case, the most serious consequences.

The stirrup-leathers ought to be strong, to prevent their stretching or breaking, which is frequently the case when they are too slight. The stirrup-irons should not be unnecessarily heavy, as they only add to the weight on the horse's back, which should be studiously avoided, though the feet retain their place better in heavy than in light ones. The patent irons are too heavy; the same purpose will be answered by having a spring under the flap or skirt of the saddle, in the iron to which the stirrup-leather is fastened.

When saddle-cloths are used, they ought to be very small, extending only an inch and an half beyond the saddle all round, and made of cloth manufactured for the purpose. They are

of use in protecting the horse's back, keeping the saddle from sinking too close upon it, and causing a degree of elasticity. Besides, saddle-cloths imbibe perspiration, and give the saddle an easier seat, as well as a more elegant appearance; they also keep the stuffing of the panuels from becoming too hard: but they should never be larger than as before described, as they create heat, chafe and swell the back, and make it extremely tender. In the cool months of winter, autumn, and spring, a small saddle-cloth may be used with propriety; but in the summer, they should be dispensed with, on account of heat. Coverings of Switzerland goat, panther, and leopard skins, and blue cloth, which officers use for their chargers, have a good appearance, but in warm weather they injure the horse, by keeping him too hot. The French hussars cover their saddles with sheep-skins with the wool on, and this, together with the long manes and tails of the horses, has a curious effect, and must, of course, be unpleasant to the rider, especially in warm weather; and there is no apparent reason for continuing such a practice, except that the skins, from their magnitude, conceal

the badness of their saddles. It is evident that dragoon horses cannot be clothed too lightly; for the nature of their exercise is such as to make them warm enough, without being loaded with incumbrances.

The skirts of the saddle should not be too long, as they will also promote heat; and every thing which has a tendency to heat a horse, and keep the air from him, should be avoided. The short skirts that cover the extremities of the stirrups look best, when made round. By some they are made square, and to run straight to the shoulder; and by cutting them in this way conceive they will not turn up, nor catch the knees like round ones: but it gives to the saddle an ugly and heavy appearance. The smaller the saddle, provided there be room enough for the rider, the better effect does it produce, as it shews the figure of the rider, is lighter on the horse's back, and admits more air to his body.

Cruppers, as was before observed, do not look well on pleasure horses, but in cavalry they are indispensable. Horses that have a very low forehand require them to keep the saddle off the shoulders; but as the crupper

bears very heavy on the under part of the tail of such horses, they are generally much galled: to prevent which, when a crupper becomes hard, it must be opened, and a piece of candle put into it, and sewed close up again. When the crupper grows warm, the grease will penetrate the leather, and keep the cruppers soft, and moisten the skin under the tail.

Sponge might be easily applied to the girths, surcingle, and crupper, which would keep the saddle better in its place, and be more pleasant both for the horse and the rider.

CHAP. XLI.

ON STABLES AND CLOTHING.

AS good houses are necessary for the convenience and comfort of man, so is good stabling for horses. The best situation for stables is that which is dry and airy, or on a level, and not on a damp and low ground, as dampness will affect them materially. Stables should have lofty ceilings, which prevent the air from becoming foul and too hot, which it would do if the ceilings were low. A few small apertures should be made at the bottom, to admit fresh air, and some also as high as the ceiling, to give vent to the foul air at top, which becoming rarified, and consequently lighter, ascends to the ceiling; and the fresh air at bottom forcing itself in, will expel the other. This is better than ventilators, as they fill and empty stables too hastily, by which means horses take cold. If the weather be

cold, the apertures at bottom may be partially shut. Stables ought neither to be kept too close nor too warm, which will eventually be the case where a great many horses stand together. Heat relaxes the stomach of a horse, and consequently hurts his digestion. Keeping horses in clothes that are too hot has the same effect, and makes them tender, and liable to catch cold. Horses at grass scarcely ever catch cold, even in the most rigorous season. It must be allowed, however, that after a horse has come off a journey, and is warm, a cloth ought to be thrown over him until his coat is dry. It is an artificial heat, and therefore requires an artificial remedy; but as soon as the horse's skin is dry, let the cloth be removed, let him be well rubbed down, and left so. This will be better for his health, appetite, and digestion, than wrapping him in warm clothing. The stall should be sufficiently roomy to allow a horse to lie down, and to rise and turn himself with ease; for he does this with such suddenness, that he frequently hurts himself against the sides when the stalls are too narrow. Stables are generally paved with very small round stones, or pebbles, which is

an absurd practice. The principal reason for using such pavement is, that the urine may escape between the pebbles, and keep the horse dry. This effect might be produced when the stalls are not level, but many reasons may be urged against this practice. A horse stands very uneasy and unsteady on such floors, his feet only touching at a few points, which consequently bear the weight and pressure of the whole body, and in lying down he is liable to bruise his knees, which causes a stiffness, and is detrimental to him in bending his joints, and contributes in some measure to bring him down. The rest procured on floors of this kind is by no means, at times, such as the animal requires, for it frequently happens that in lying down he removes the litter, and instead of repose he receives considerable injury. The bed of the stall ought to be made on a very slight ascent; for the more level it is, when he lies down the more equal is the pressure on all parts of his body, and consequently he enjoys the greater rest. When stalls are too high before, the weight is thrown on the hind legs, which produces swelled heels.

For the reasons above stated, the stalls of a

stable should be paved with large slabs, a very little higher at each side than in the middle; and as nearly as possible to the spot where the horse stales, there should be placed a square stone, made rather hollow in the middle, with four or five small holes leading to a sewer beneath, which would more effectually carry off the urine than any other sort of drain. There is another great advantage that would result from a contrivance of this kind, which is, that the hind legs of horses would never be immersed in their own urine, which soaks through the litter, and mixes with the dung; and by remaining upon their heels all night, causes most of the disorders to which the heels of horses are subject. Stalls of this kind are not more expensive in the construction than any other, as the whole may be paved with bricks, or any flat stone. Nothing extraordinary is required but the centre stone with holes, to convey the water into the sewer beneath. The Swedes floor their stables with strong, coarse planks of wood, and at certain intervals the centre planks, which are depressed a little, and on the descent, are cut through longitudinally, by which means the urine runs into receivers,

to which the stable-helpers have access for the purpose of cleaning them. Horses lie more dry and comfortable on this flooring than on stone or brick, which is considerably colder. It is as cheap as pavement, and half the litter is not required as on stone floors. Horses are frequently inclined to stretch themselves out, and lie on their sides when they are much fatigued; the reason of this is, that the position relieves every part of the body from unequal pressure.

It is the duty of those who receive either pleasure or profit from the labours of a horse, to make an ample return for his services; and as that return must necessarily consist of attention, care, and good treatment, it should be the primary object of their owners, not merely to feed them, but to bestow upon them every kind of indulgence which the arrangement of the stable can afford: and it is proper again to observe, that there is nothing more essential to the well-doing of a horse than cleanliness and roomy stalls.

The flooring of the hay loft should be as close as possible, and opposite each rack there should be a small trap door, through which the

hay is received into the rack. This should shut down so close as not to allow the breath of the horses, and heat of the stables to pass, as it will destroy the flavour of the hay. The trap-door through which the stable-helpers and grooms ascend should also shut down close, for the same reason. The best plan is, to make the hay-loft door at the side of the stables.

To what has been advance on the subject of stables we may add, that the doors should be kept open as much as possible in fine weather.

CHAP. XLII.

ON BREAKING CAVALRY, SADDLE-HORSES, AND HORSES OF EVERY DESCRIPTION.

THIS is a business to which professed grooms are fully competent, but it is rather the occupation of those who are called horse-breakers; and it is an employment of some importance with respect to the horses above mentioned, as from such men they receive their earliest tuition; and great care should be taken not to instruct them improperly at first, as they will most likely retain their bad habits during their lives. The first lesson a colt receives, after he has been tied to the rack in a collar, and is accustomed to be spoken to and handled, is to be led backward and forward to his stable to be watered. This habituates him to the voice and presence of men, and removes his shyness, and accustoms him to the pace of the person who leads him.

Those persons who have the management of colts should frequently take up their feet, and beat them gently round the edges with a small wooden hammer, which will prepare them, in some measure, for being shod; and when that operation is performed they will stand more quietly. Young horses are frequently so alarmed at the process of shoeing, that it cannot be done without the trouble of throwing them; or if it be effected without this, it is with great difficulty; and from the sudden struggles of the horse to pull his feet away, he is often pricked, which not only frightens him, but injures the foot.

When it is intended to break in a horse, a cavison is first put on his head. It is made like a collar, with a strong piece of iron outside the leather strap that goes round the muzzle, and in it are fixed three iron rings, one in front, for the longe, and one at each side for the side-straps. No side-straps are used at first, but the longe only, which is a long cord, tied, or, for the convenience of easily undoing it, buckled into the ring in front. With this and a snaffle, knotted and laid loose over the neck, he receives his first lessons on the circle

or ring. A second person is very necessary with a whip, to correct his stubbornness. After he has been exercised in this way till he goes freely, a roller is put on his back, with a hook in the centre to fasten the snaffle reins, having a ring on each side to which to fix the side-straps, one of which is only fastened at a time, namely, the strap towards the centre of the circle on which he is exercised; but should he be inclined to keep his head too much that way, the other must be fastened also, in order to keep it straight. As soon as he moves with freedom in all his paces, another apparatus is to be fixed on his back. First the manege saddle, with or without fastening the side-strap, as the horse requires it; and, instead of fixing the side-straps of the cavison to the saddle, as was formerly the custom, a strong cross of wood is used, with eight buckles, two above and two below on each side; four of the buckles with straps for the side reins, which are at one end, and fastened to the rings of the snaffle bit, are fixed at the four extremities of the cross, and the other four near the centre, with straps and buckles

also, one above and one below on each side. The angle of the cross, which rests on the saddle near the front part, is strengthened with a piece of wood fitted into the angle, and made hollow; and this cross is confined tight with a strap or girth fastened to the ends of the two lower arms of the cross; and, to prevent the cross from moving out of its place, there is a strap and buckle near the centre behind, which may be fastened to the crupper-ring. Beside this, there is also a swivel spring rising from the centre in front, on which to place the snaffle or bit reins of a horse that is light with his mouth and forehand. This acts very free and easy, and does not press much or bear hard on his mouth, but plays the bit up and down gently.

For horses that are hard mouthed and heavy before, there is another cross in every respect like the one already mentioned, except that the spring in the front is flat, and tolerably strong, inclining forward, with a curve toward the top; and inside of the extreme point is a small semi-circular hook, on which the snaffle reins are attached, to any required length. This apparatus is preferable to fasten-

ing the side-straps of the cavison to any other pad or saddle, because the horse's head can be raised to any height, if he be inclined to keep his head low, and bear on his mouth and forehand too much. If he carry his head too high, it can be lowered without a martingal. Those who break horses are much divided in opinion whether it be better to break them in a riding-house or in the open fields. It is certain that in a riding-house a horse pays more attention to his lessons, because he is not distracted with objects that are likely to take his attention from what he is doing; so that the first lessons might be given with more effect within doors than without. Many riding-houses, however, have not a convenience of this sort, and recourse is obliged to be had to a field ring; and if the weather be fine, it is pleasanter and cooler both for the horse and the breaker. The place, however, would be better adapted if it had been used before; for when a horse is lead a few times round, it gives him some notion of what he is to perform. At first the ring should be large, as the motions of the horse will not be supple or free enough to work on a small one; but the ring should be

lessened gradually, until it be very contracted. As soon as he has been accustomed to go freely on a larger one, only the inside rein of the cavison should be fastened, and the breaker should teach the horse always to lead with the foot within the turn, otherwise, as was before observed, he will cross his legs, and be in danger of coming down. This should invariably be observed in moving on circles, either when the horse is in hand or mounted, and it is best always to make him lead with the off leg.

In breaking a young horse, the lessons should never be too long, for the animal will become disgusted and tired, and if he be of a spirited nature, will contract viciousness and restive habits; and if of a contrary temper, will grow dull and be disheartened; the lessons, therefore, should be short; and as soon as he is taught to perform what is required, the person who breaks him should stop and caress him. In the King's riding-houses the horses are accustomed to the sight of drums and colours, and are initiated into military habits as soon as they are broke; and the same methods are used which were described and

recommended in a former part of this work. If horses are broke in the open fields, it will be proper to fire off pistols frequently near them; for being a sudden noise, it accustoms them to be steady to all sounds. The paces that cavalry and saddle horses are usually taught at first are the natural paces, viz. the plain walk, trot and gallop in hand, and then mounted. The seven artificial paces, which may be taught afterwards, are mentioned in another part of this book.

Chargers, and horses used for pleasure, should, after they are mounted, be taught to passage freely both to the right and left; and for this purpose, they must be exercised on the passage both with the croupe and the head alternately to the wall, in a riding-house; but if none be convenient, it should be practised along any wall or pallisadoe, and afterwards in the open field. If a horse is to be exercised on the passage to the left, his head must be kept well in, and must be pressed with the right leg. If he does not obey this pressure, he must be touched gently with the spur, but never be hurried, for it is a pace that requires slowness. It is performed by crossing the legs

one over the other, and is consequently difficult. In passaging to the left, a horse should stand with his right fore foot before the left, and his right hind foot before the left or off foot, and always begin the passage with the right, when he moves to the left, and with the left when he passages to the right; and in the same manner he must be taught to passage to the right by pressing him with the left leg, &c. These two motions are very necessary for all dragoon horses, in opening and closing their ranks either to the right or left. Reining back also is necessary for horses of the same description, which is to be taught partly on foot, by pressing his head, and forcing him backwards at first. Make him do the same when mounted, by pulling the snaffle tight. If he do not obey, press him backwards with the bit or badoon; and if he be still obstinate, some person at his head may assist in compelling him: but he must never be touched with the spur, as he will then bolt forward, or throw himself too much on his haunches.

If it be wished to teach a horse all the artificial motions, some of them should be first taught him on circles of a large diametre, and

some of them on a right line. A horse that is broke for hunting ought to be instructed in all of them, as it supples him properly for all kinds of leaps.

When a horse is first backed, it must be done deliberately, by rising several times in the stirrup, on the left leg, and descending again. The rider is then to seat himself firmly on the saddle; but in the mean time another person should hold the horse's head, to prevent his starting, and should continue to lead him during his first lessons. The rider should not remain too long on his back, as it will tend to make it hollow, will bend his pasterns too much, sink his soles, and tire, dispirit, and disgust him.

CHAP. XLIII.

TO KNOW THE AGE OF A HORSE BY HIS TEETH; AND SOME GENERAL DIRECTIONS TO ASCERTAIN HIS AGE AFTER HE HAS LOST THE MARK OF MOUTH.

EVERY one who buys a horse should be acquainted with the means of ascertaining his age with some degree of accuracy, to prevent being imposed upon. The teeth, therefore, are the only sure guides, till a horse loses the the mark of mouth, that is, when he is past eight years; yet sometimes the mark of mouth of the eighth year, which is the last that disappears, will remain, though but faintly, until he be ten or eleven years old, which will deceive the generality of people. The first teeth that make their appearance in the mouth are the foal-teeth, two above and two below, in the front and centre of the upper and under jaws,

and are very white, on account of the friction they receive from the stronger part of the lips. Other teeth appear, at different times, until there are six above and six below. At the age of from two years to two and a half, or sometimes three years, the four that first came out are cast; in the place of these spring up four others, much stronger and larger, which, as it is with these the horse cuts his grass, and helps himself to food, are called nippers or gatherers. Some people denominate them the middle teeth, from being in the centre. From three and a half to four years old, two others are shed, viz. one on each side of the two nippers above and below; and in their stead spring up four others, which are called separaters, from their being placed between the nippers and corner teeth. There remain now only the four last foal teeth, which are the corner ones. At four and a half he casts these also; but generally before they appear the tusks begin to spring up, and at first are very small. The corner teeth in the upper shew themselves before the corner ones in the under jaw; and, on the contrary, the under tusks appear first. The corner teeth appear quite out of the gums

when the animal is near five years old, with a fleshy substance adhering to the middle, similar to that which adheres to the inside of an oyster-shell. These corner teeth are short at first, and do not meet or stand even with the others; but as the horse advances to six years old, they gradually lengthen, until they meet, the fleshy part in the centre wears away, and at six years old the centre is even with the outside, and in the middle appears a small black speck, like the eye of a ripe bean. His tusks will now be at their full length. At seven, the colour of the speck becomes more faint, and of a light brown, and the tooth more flat, smooth, and even. At eight years old, this mark disappears in the generality of horses, particularly if they have not been much at grass, as the dry, hard feeding of the stable requires more grinding than grass; and though the horse only collects his food with them, yet they pass more frequently over each other in chewing hard than soft food, and consequently polish and wear each other the more. In some horses this mark may remain till nine or ten years old, though it be very faint, and it is a

sign that the mouth is good and the teeth strong; so that if their action be good, they are, at this age, as valuable as a horse of seven or eight years old.

CHAP. XLIV.

GENERAL OBSERVATIONS ON HORSES THAT ARE AGED, OR PAST THE MARK OF MOUTH.

THE teeth of horses, like those of the human species, become rusty and yellowish in the course of time: a certain quantity of tartar adheres to them, and gives them this appearance. The older a horse grows, the harder and more shrunk up are his gums, which gives the teeth a long and naked appearance. If any black speck remain after eight years old, it will, as we before observed, be very faint, much polished, and not hollow, as in young horses, but flat all over. In feeling the tusks in the upper jaw, if they are found to be worn even with the palate, the horse is old. In a young horse, the inside of the tusks are hollow, or channelled a little inside; but in old horses, they are filled up, and become round. If the

tusks be large, yellow, blunt, and round, it is an indication of age. In young horses, they are smaller, cleaner, sharper, and whiter. A young horse's fore teeth stand close together at the edges above and below, but those of an old one do not: the upper ones project, and are long, foul, and yellow. If an aged horse have white teeth, it is not uncommon to give him a false mark, by burning the centre of the corner teeth with a small pointed iron, and by putting oil of tartar into it, which blackens it, so as to give it a natural appearance; but good judges will easily detect it. The artificial mark will be of a much deeper black than the natural one. The eye of an old horse sinks inwardly, looks dead, and is very hollow above the eye. The under jaw-bone of an aged horse, rather above the under lip, is sharp at the edges; that of a young horse is round; which is to be attributed to the flesh of the latter being more firm than that of an old one. If some grey hairs appear on the eye-brows of dark coloured horses, they denote age. The ridges or bars in the middle of the mouth of an old horse appear dry and lean; but in a young one they are high and plump. The

belly of an old horse generally falls in, and assumes the shape of a cow's; and at the same time he becomes hollow about the kidneys.

However good their condition, the anus of an old horse shrinks considerably; which is occasioned by the falling in of his belly. The yard of a young horse, as well as the sheath, is very small, but that of an old horse is the reverse.

If a horse carries his age well, has a firm mouth, bends his knee properly, has never been down, and has good action, a year or two in his age makes but little difference; for a good horse is better at ten years of age than one that is naturally bad at seven. With care, some horses will be serviceable till they are seventeen or eighteen years old.

To the external signs above mentioned may be added the dryness and roughness of his hair. The hair of a young horse, if he be in good condition, will always be sleek, because the warmth of youth, and the abundance of animal juices, afford it sufficient nourishment; but the hair of old horses is rough, for the want of those juices.

The upper teeth of aged horses almost always project over the under ones; the reason

of which is, that in chewing, the under jaw only moves; which, being placed as far outwards as possible, and moved inwardly again, the pressure increases till the teeth are close; and the jaw being then moved crosswise, the force gradually lessens, till the jaw is extended as far as it can go; the friction, therefore, is least powerful at eace side; and the motion of the jaw beginning from the outward edge, and moving obliquely inward, the outward edge of the fore teeth suffers but little. The pressure being chiefly on the inward edge, the teeth of the upper jaw are much worn; but in those of the under, the outward edge suffers most, while the inward edge remains sharp and untouched. With respect to the grinders, the outward edge of the under teeth and the inward edge of the upper, are chiefly used, and consequently are most worn. The countenance of an old horse al o looks heavy, as was before observed, and they become hollow above the eyes; but this will frequently be the case with young horses that are produced from old stallions.

CHAP. XLV.

ON CHOOSING HORSES AND MARES FOR BREEDING.

YOUNG mares and stallions are, for palpable reasons, to be preferred for breeding from. A mare may be taken to the horse at three years old, but the stallion ought to be five or six: at four he may have a few mares, but too many will weaken and spoil him. Foals, produced from a young mare and a young stallion are supposed to possess more fire and spirit than those from aged mares and stallions. A good mare, however, will produce as fine foals at eight, nine, ten, and even at fourteen, as at an earlier period of her life. The best age for a stallion is from six to eight. He may answer the purpose even till twelve or fourteen; but after this period his services may be

dispensed with. Either the mare or the stallion ought to be young; for if both be old, the produce will not be good. Those who breed horses, and who wish to have a good produce, must be careful in choosing well-shaped, spirited mares, as well as good stallions.

Race-horses are very properly bred from those that are most celebrated, and the same rule should be observed in breeding hunters and hackneys; for if the mare, or the stallion, or both, be ill-shaped and spiritless, their offspring will be the same. The stallion should be handsome in all his shapes, have a small head, bend his knees well, and shew a great deal of spirit, blood, and action. A mare that either cuts or brushes, goes close on the ground, or that has come down, should never be selected for breeding, for her foals will inherit her bad qualities. She ought in every respect to correspond with the horse above recommended.

Lowness of condition in a mare that it is intended to breed from, is not very material; but if she be too fat, she will not keep the horse. It has been conjectured that the breed will be the better for the mare having a foal

every second year only; but this chiefly depends on her being well fed, and on the goodness of the pasture.

To make a mare keep the horse, if she do not prove with foal, she must be reduced in flesh, and fed sparingly for some time before she is covered; for those that prove barren are generally such as are too fat. If, however, after they are reduced in flesh they still continue barren, let them be rode into a pond immediately after copulation, or let some water be thrown on their hind quarters and back, which will sometimes cause the fattest mares to keep the horse.

Breeding from stallions not related to the mares is allowed to be best. Crossing the breed of the generality of animals produces a better offspring, there being too great a similarity of constitution and habit of body in those which are too nearly related. Their union is more frigid and languid, and is not performed with equal fire and spirit as between those which are distantly related, or not related at all, or from another country. In England, changing even from North to South would be of service. It is the same with all

grains, vegetables, and plants; they flourish better by transplanting the seed to a different soil.

Mares retain the foal eleven months and a few days, more or less, according to their age; they therefore should have the horse some time in the month of May, or early in June; as the season in which she will foal will better agree with the tender age of her offspring. She will have plenty of milk, and the foal, which is naturally short necked, will more easily reach the tops of the grass, which he begins to eat at six weeks or two months old, and which contributes much to its health and vigour.

After foals are weaned, which some assert should be at the beginning of winter, and others, with more reason, not till the following spring, they should have fresh hay and a little sheaf corn mixed well together, to prevent their cropping the heads only, and thus obliging them to eat the straw at the same time. This is much better than threshed oats. When the grass is become sufficiently nourishing, no other food will be necessary, unless the pasture be bare; which ought not to be the case, as it keeps them too long on their legs, causes their

feet and soles to grow flat, their heads large, and their pasterns to bend too much; and as they have not sufficient time to rest, the pressure injures their shape in every respect.

If the coats of either young or old horses are kept dry, they never catch cold. They have a natural aversion to wet weather, which is very injurious to them. Horses that never have been broke should have sheds in their pasture grounds, with a rack, and some hay to eat occasionally, and to which they may retire from the rain. They are preferable to stables, but they should be kept clean and dry.

Foals should never be tied, or confined about the head or neck, until they are two years old at least, at which time they ought to be put in collars, and fastened in stalls like other horses. When they have completed three years, the process of breaking them may be commenced: but when they are backed, the rider ought not to be heavy, for the weight, as we have already noticed, will make their backs hollow, cause their pasterns to bend, and their soles to become flat.

In cold climates, the mystery of br eding horses consists in the choice of mares and

stallions, in keeping them dry and well fed in winter, and giving them good pasture in summer. Horses delight most and thrive best in extensive campaign countries, where they have a wide range, plenty of grass, and a good soil, such as in Poland, the northern parts of Tartary, Persia, &c. Hot climates are better suited for horses than those that are too cold. In Norway almost all the horses are diminutive, and most of them of a dun or dirty grey colour. The badness of the colour, as well as the size, shew the degeneracy of the race; but in the latter respect they are suited to the soil of the country.

It is of great consequence that foals should have plenty of room to exercise. Their propensity to playfulness should be encouraged by every possible means; and nothing contributes more to bring them to perfection than allowing them an unrestrained licence in the field, where their amusements are as salutary as their actions are pleasing.

Geldings may graze among brood mares with the greatest safety; they will do no mischief to the foals by kicking or biting them; but, on the contrary, they are very fond of

them. Stallions also are remarkably fond of their young, which shews the generosity of their nature. Dogs differ from almost every other animal in this respect, having an unconquerable dislike for their offspring.

Blood, among horses, is nothing more than a superior degree of spirit and action, which is preserved and improved by paying particular attention to the breeding of foals from the finest and most spirited mares and stallions. Among the large horses of the Flanders breed there are many that have very light and handsome heads; and the more the English draught-horses are mixed with this breed, the better. The common horses, whose breed has not been crossed, are ugly and ill shaped, especially about the head and neck. Among the Hampshire, the Welsh, and the Scotch ponies, there are many that shew much blood, spirit, and action. The Irish horses are very hardy, and are good leapers. They are not so delicate as the English, but are of a proper size, and well adapted for the light dragoons. Their hardiness is chiefly owing to the manner of their being bred. The pasture being generally plentiful, even on the mountains they are turned out;

and unless the winters be very severe, they are never taken in till they are three or four years old, when they are about to be broke in. This renders them fit for the cavalry; for having been reared in this manner, and not accustomed to being pampered in their youth, they are better able to bear hardships. English horses are paid more attention to, when young; and being treated delicately, they ever after require the same care; otherwise they fall away, and are unable to perform their work.

CHAP. XLVI.

ON RIDING.

THE military mount their horses in the following manner:—The dragoon stands square at his horse's shoulder, with his right side to the horse, and facing to the front, holding the snaffle, or badoon rein, tight in his right hand, as near the cheek as possible. At the words "Prepare to mount," he faces to the right, turning on his left heel, and stepping about three parts of a pace out with his right foot, opposite the girth, and about four inches in the rear of the left, so as not to move it when the left is put into the stirrup. He then takes the badoon rein in the middle, where it lies on the withers, by putting the four fingers under it, and raising the points a little. The rein then falls down towards the thumb, across the hand; at the same time taking the joining or nut of the bit-rein between the fore finger, and

thumb of the right hand, the little finger of the left hand dividing the bit-rein. At the word or motion he draws the bit rein up, so as to feel the horse's mouth gently, the right hand above the left. At the next word or motion he throws the doubled bit-rein to the off side of the withers, extending the right arm as far as he can reach. At the next word, he advances the bridle hand a little way along the mane, towards the ears, bringing the right to the withers, taking hold of the mane, at the same time keeping the right elbow down. At the next word, he turns the right elbow up, holding the mane between the finger and thumb of the left hand, with the right elbow up. At the next word he brings the right hand from the mane to the stirrup-leather, turning the flat side towards the body. At the next motion, he puts the left foot into the stirrup, and slips the right hand along the cantle to the off side of the saddle, as far as he can reach. At the word "Mount," he rises in the stirrup till he stands straight on the left leg, bringing the right heel close to the left; the body continuing erect, as if standing on the ground. At the next word, he places himself

on the saddle, and the leg and thigh are thrown over the croupe; and he slips his hand from the cantle to the pommel of the saddle, for the purpose of seating himself easily. By raising and turning in the toe of the right foot he then places it in the off stirrup.

This method of mounting a horse is evidently meant only for the military man, whose discipline requires a degree of precision, and whose motions are marked by a distinct word of command. Without it, there would be no uniformity. It is a precision, too, which is only observed while in the ranks; for in the bustle of an action, if the soldier be dismounted, it is entirely dispensed with. The man of pleasure should certainly adopt the outline, but there is no occasion for his observance of so much formality. It is essential, however, that he should perform it with elegance; and he cannot do better than take for his example the military method.

The first lessons of riding commence by quitting the bit-rein, and taking the snaffle, or badoon rein, in each hand, and without stirrups, which teaches them independent firmness on the saddle.

Riding is one of the most general uses to which horses are applied, and the most elegant and healthy exercise for either a man or woman. It is therefore necessary to say something more on the subject, and to give a few general hints to those who have not properly attended to this art, and which are essential to their own safety and pleasure, as well as to the comfort of horses. There is no attitude in which a man exhibits so aukward an appearance as when on horseback, if he be unused to riding. The horses themselves are not only aware of this ignorance, but also of the timidity that consequently attends it; and they, instinctively as it were, take advantage of it. But by observing a proper method of mounting, and being firmly seated on the saddle, this aukwardness will be corrected, by sitting erect with the shoulders back, and the breast and belly pressed forward; the ball of the foot must be placed in the stirrup, with the heels rather lower than the toes, the latter pointing forward, or turned inwardly, if in the ranks of the cavalry, which will prevent the spurs being thrust into the horse by the persons on each side when in close order. The

body must not be supported with stiffness, but with ease and boldness, nor must the legs be pressed too close to the horse's sides, or, on the contrary, extended too far from his body. The hams are to be kept stiff, but not with constraint. The bridle must be held at such a length as not to compel the rider to give to his body a stooping position; nor must the arm extend farther over the withers than about two inches. The reins should be of such a length as to feel the horse's mouth gently, without pulling him. In altering a pace, nothing more is required than to give the horse his head, by extending the arm forward, but not letting the reins slip through the hand. The most trivial relaxation gives him to understand the intention of the rider. The proper seat is the middle of the saddle; and the saddle ought to be as nearly as possible in the middle of the horse's back, which is the centre of motion. The elbows must not be pressed too close to the body, nor held at too great a distance, but suffered to hang naturally by the sides. A good rider never presses his horse with his knees, except in leaping. It is not by any constrained exertion of this kind that the seat is kept, but

by supporting the body perpendicularly, and managing the horse well with the bridle.

The danger that results from the restiveness of a horse can only be guarded against by care and courage. Kicking, plunging, and rearing are extravagancies to which every rider is liable, and whenever they occur, flexibility of body is essential to counteract the consequences. On the sudden elevation of the fore legs, the body should be thrown forward with all its weight, which will sufficiently preponderate against the animal's exertions to disengage himself; and in kicking, a conduct diametrically the reverse must be adopted, to prevent being thrown over his head: but in the former case, it not unfrequently happens that a horse, when he finds himself opposed with firmness, will plunge forward violently, and thus endeavour to revenge himself; but it only requires that his motions should be cautiously observed to render all his restiveness fruitless.

In the slow paces of the horse, the rider must sit easy, and erect, and not bend his body in a careless manner; in the trot and gallop, however, a slight inclination forward is necessary, in proportion to the velocity of the

horse's motion, for the purpose of facilitating his speed.

In riding, the stirrups should always be sufficiently short to enable the rider, by means of springing, to lessen his weight on the horse; but they should not be so much so as to occasion an awkward bending of the knees.

In hunting, the stirrups should be shorter than for the cavalry, or on the road; for the action of the horse being more irregular and violent, particularly in crossing a country where many rising or flying leaps occur, the legs of the rider will be less exposed to accidents, and it also diminishes, in proportion, the fatigues of the horse.

At the commencement of the Chapter, the regular process of mounting horses, by military men, was explained. As the dismounting is effected by motions similar in almost every respect, and by different words of command, it has not been thought necessary to give it in detail. In this, as well as in mounting, except when in the ranks, the rider is subject to many local circumstances; and, of course, he is obliged to conform to them.

The man of pleasure may, as in mounting, adopt the outline; but he will naturally depart from the formality.

All military practices are now, however, very likely to be more generally diffused, in consequence of the spirit of loyalty that is manifested by all ranks to oppose the incursions of a neighbouring tyrant.

CHAP. XLVII.

ON LEAPING.

HOWEVER spirited in their action and natural paces, horses require to be taught to leap. All the leaps which are requisite for a horse to perform are three, viz. the standing, the rising, and the flying leap, and each of these depends on one or other of the seven artificial motions already mentioned, in which if he has been instructed he will leap the better. It is best to begin with the standing leap; and after he has been well broke in and suppled, it will not be a difficult matter to teach him to leap safe and well.

The standing leap being the foundation of the other two, it is necessary to speak of it first. A standing leap is that which a horse may perform without much exertion, such as

leaping over a drain, ditch, rivulet, &c. or over a bar, gate, or any other elevation of a moderate height. In the first, the horse must not be thrown too much on his haunches, because his object is rather to leap straight forward than to rise; he must therefore have more rein, and his head consequently more freedom. But in this, as well as in every other violent exertion of the horse, the rider must use all his caution, especially if he be unaccustomed to it. It is necessary, therefore, at the moment the horse contracts himself for the purpose of leaping, that the person on his back should be prepared, by taking a firm seat in the saddle, and by pressing the hollow part of the thighs with adequate force against the sides of the horse; which is not only a security against being thrown by the agitation, but also relieves the rider from the violence that accompanies a reliance on the spring of the foot. This observation, it must be confessed, is quite unnecessary to the man of experience; but to those who are at the commencement of their field career it may not be an unacceptable hint. In the pursuit of pleasure in the field, carelessness is the prominent feature of almost all

young men, whose eagerness prompts them to be foremost in the sport, regardless of the dangers that too frequently attend the spirit of emulation in such exercises. It becomes the duty, therefore, of those who have already been successful to point out, either by precept or example, the means that should be adopted by their successors to guard themselves against the consequences of precipitancy in matters that require all their care; for by the inadvertency of a moment the most dreadful pains and penalties have been inflicted, that have only ceased with life. He who attempts to vie with the experienced, should at least have a degree of modesty to assist him; and he who is most mature should never be unmindful of danger. We have digressed so far, in order to shew the necessity of caution in violent pursuits; and by attending to the maxim, many bad consequences will be averted. We now proceed on the subject.

As the rise in this leap is not great, the descent will neither be very violent nor rapid; there will consequently be no occasion to check the horse forcibly with the bridle. It will be sufficient to let him feel the bit moderately, and

not to pull or check him while in the act of performing his leap, which may bring him down before he reaches the opposite side. This leap is performed on that motion called the demi-volte, which, as well as the other artificial motions, has been before described.

A rising leap is over a bar, gate, or other fixed fence, and which a horse, on account of its height, cannot accomplish, unless he is put a good deal on his mettle, and brought to it on a slow, steady gallop. He must be rode up to it coolly, and must choose his own distance, which, when accustomed to leap, he can do better than his rider. In this leap, the horse brings both his fore feet close together, throws himself on his haunches, and springs, by the assistance of his hind legs, into the air, with his fore legs bent in towards his belly, and when at the height of his leap, he throws up his hind legs in like manner, strikes them out straight and forcibly behind him, and alights on the opposite side with his feet close together, in the same manner as he rose. The rider must bend forward, at the same time sustaining his horse's head with the bridle, but not checking him, and accommodating his body to

the motions of the animal. This leap is a compound of the corvet and croupade.

The flying leap is that which carries a horse over a wide drain, ditch, &c. and that he may acquit himself properly, he should be brought to the obstacle he has to surmount on a smart gallop or canter. In this, as in other leaps, the rider's body must act contrary to the horse's motions; yet so much flexibility is not required as in a high leap. Giving free scope to the animal is the surest mean that can be adopted to enable him to accomplish his object; for such is the sagacity of the horse, that he measures the distance of a leap with his eye with unaccountable accuracy, and seldom fails, if there be time for preparation, to achieve the wishes of his rider. This leap is performed on the capriole.

When men determine to take leaps, they should on no account betray fear at the moment of exertion; for the slightest apprehension of the rider discourages the horse, and thwarts his endeavours; whereas, if he be left to himself, and receives no sort of check, he will perform his task.

In hunting, however, there are many un-

foreseen difficulties to encounter, to which the utmost strength is inadequate. In marshy countries it is almost impossible for a horse to accomplish a leap of any considerable extent or height, whatever courage or capacity he may possess. Where there is not a firm foundation for the feet, the attainment is uncertain.

CHAP. XLVIII.

CONCLUSION.

WE are now arrived at that part of the Treatise, in which it is necessary to recapitulate the contents of the foregoing Chapters; and we cannot dismiss the subject without expressing an earnest wish that whatever has been advanced may tend to accomplish the object of our solicitude, which is simply to point out what it is presumed are the best features in the character of horses, and the qualities which are essential to manifest their superiority; the advantages that must result from a well established judgement; the policy of conforming to system in every thing that concerns the breed; and, amongst a variety of other suggestions, to guard the ignorant and the unwary against the artifices of designing men, and to instruct them in the common rules of choice. These are topics which,

while they have no claim to originality, are at least such as cannot be too frequently enforced; and such as, if properly attended to, will effectually prevent (as far as possibility can prevent) the disappointments and vexations that so often attend immaturity. It has not been thought necessary to enlarge, in a very extensive degree, on a subject which has been the theme of more able talents; it is an humble attempt to reduce to precision those points, a knowledge of which may not be unacceptable to those who require it.

With all the advantages, however, of experience and science, the judgement may sometimes be deceived; nor is it in the power of human foresight to guard against vicissitude. In matters of this kind, then, much must be left to chance; but the rules of probable rectitude, if closely adhered to, will obviate, in a great measure, the effects of casualty.

The constitutions of horses are as various as those of the human species, and the powers of art have been exerted to a great extent in defining the nature and causes of the numerous diseases to which they are liable. The perfection to which the researches of some emi-

nent men have been carried, to ascertain what till lately has perplexed the soundest judgement, sufficiently demonstrates their desire to alleviate the sufferings of the most useful animal that is subservient to our purposes, and evinces an amicable and industrious spirit, which it is hoped may inspire others, who are emulous to acquire celebrity, to pursue their example.

We cannot omit here paying a tribute of respect to an individual, whose intense study and profound inquiries have reduced the intricacy of the veterinary system to the capacity of the meanest practitioner; and to conceal the name of Mr. WHITE were little short of an act of injustice. But by thus signalising one man, we would not be thought to deprecate the talents of others; for there are many who deserve the highest encomiums for the eagerness they have shown in endeavours to mitigate the pains, and to ameliorate the condition of the HORSE.

But there are still many mysteries in the animal frame which can only be developed by time and circumstance; the Power that thinks fit to conceal them from the knowledge of man

for the present, will, by degrees, communicate them all.

In reverting to the external points of perfection in a horse, we particularly recommend a close observance of the rules that have been suggested. They will at least assist the judgement of the inexperienced, who purchase from the stud of a dealer, against whom it is a kind of duty to guard them; for horse-dealers, in general, are a class of men that we cannot compliment for their integrity. It were the height of injustice, however, to imagine that they all deserve the character that is imputed to them, for we could mention many exceptions.

The four most essential objects of our care are, the head, the feet, the back, and the knees. Though it seldom happen that all these members are to be met with, as perfectly as we could wish them, in one horse, yet it is proper that those which are selected either for the army or for pleasure should possess them to a certain extent. The spirit, which demonstrates itself even in the features, cannot be dispensed with; for without it, neither satisfaction nor service may be expected. So much depends

upon it, indeed, that when it is deficient our very safety is at stake. There are many occurrences in riding in which men would be submitted to the greatest dangers, were it not for a proper degree of spirit when it is required. The sportsman, on an inanimate horse, exposes himself to the risk of his life; while a spirited one will carry him through the greatest difficulties. The soldier's situation is still more perilous; his twofold danger demands all the fire and energy of which the animal is capable. In parrying the sabre of an enemy, however expert and courageous the combatants may be, it is necessary that their horses should be so too; for to him, whose horse is inferior in this respect, the consequences are generally fatal. The alternative, at best, is a wound, a prison, or a grave.

But notwithstanding the necessity there may be for the quality which we have here insisted on, still there are others which are essential to raise horses to eminence in the opinion of the man of judgement. It is not merely in the firmness of a limb that we are to place reliance; it is the symmetry, the proportion, that constitutes excellence and beauty. The labouring

horse, whose joints are firmly cemented, and whose powers are great, affords to the eye an object of admiration while we contemplate the immensity of his strength; yet very few horses of this description have any claim on our praise for uniformity of figure. The very nature of their employment, indeed, produces distortion. We do not mean to infer, however, that power is not requisite for the army as well as for pleasure; nor must it be imagined that the greatest strength is to be met with in limbs of magnitude; for though the texture may be different, and the body less robust, the more delicate horse is generally assisted by a portion of spirit which gives him durability in fatigues, and courage in pursuit.

Horses should certainly be adapted to the weight of the rider; for it were unreasonable to expect that those of a slight texture, if mounted by heavy men, will be so long serviceable as those that are more firm; for however great may be their spirit, by continually urging them to exertions under heavy burthens, the spirits relax, the sinews become infirm, and the animal ultimately falls a victim to his own perseverance.

There is a degree of cruelty attached to the conduct of those persons who urge horses beyond their natural powers, which no incentives can justify. In the chace, it is true, something may be said in favour of men who have been led on by hopes that the object of their pursuit might, after having been driven to some distance, return to his native wiles, and thus shorten the toils of the day; but it frequently happens that such persons are allured to follow farther than their horses can carry them without pain, regardless of their distance from home; and perhaps their sport is concluded in a country which affords no means of obtaining either rest or sustenance; and thus they are compelled to aggravate the sufferings of their horses, by lengthening their fatigues: for such men, as has been observed, there may be some apology, as both themselves and their horses are generally well qualified for exertions of this sort; yet the cruelty of such conduct cannot be questioned. On the road, however, there can be no excuse for urging a horse beyond his strength. Long journies on a bad road are more injurious than any other labour; and as the resources are numerous, they should often be resorted to.

Whenever difference of opinion arises respecting horses, it is generally on those points which are rather the effect of caprice than of judgement; for no man would attempt to oppose those maxims of choice which have received the sanction of time, and which are too evident to admit of controversy. But caprice has its benefits. From it results many advantages to the dealer, by procuring for him the high prices that are frequently bestowed to indulge the fancy, while the real worth of the animal is not considered. It is to caprice that he is indebted for that unceasing desire of change which frequently releases him from horses which otherwise would have remained a heavy charge on his revenues. In short, it may be fairly presumed, that in this age of whimsicality a horse-dealer gains more by exchange than by any other source of profit. It not unfrequently happens that men of fortune, merely from a love of variety, dispose of an entire stud one day, and perhaps the very next fills his stables with horses of another colour and size; and, indeed, these changes are practiced, in a comparative extent, by numerous individuals who keep no more than one or two

horses. It were to be wished, however, that these exchanges could be effected without impeaching the credit of the seller or the understanding of the purchaser, which is too often the case; for in placing an implicit reliance on the fair words of those we trust, we relinquish our own judgement in the hope of an honourable indemnification, which is often rewarded by the basest deception.

In having frequently alluded to horse-dealers, we trust it will not be construed into a desire to attach to them the slightest censure as a collective body; for as there is a propensity in all other men to derive advantage from superior talents, it were selfish and inconsistent to deny it to them. Buying and selling are honourable sources of wealth, but to take undue advantage of the unwary, under cover of superior knowledge, or impose on the ignorance of another, by having the means of procuring things that have neither the qualities for which they are sold, nor those which would suit the convenience and answer the purpose of all mankind.

But since the artifices of horse dealers may be detected by paying proper attention to the essential points, we have endeavoured to

charge our duty by a plainness and perspicuity which cannot be misunderstood; and while we offer to the world, with deference, our opinions on the qualities that constitute the standard of usefulness, if not of perfection, and again recommend to the reader an adherence to our maxims, we resign the Book to his indulgence and his candour.

THE END.

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